

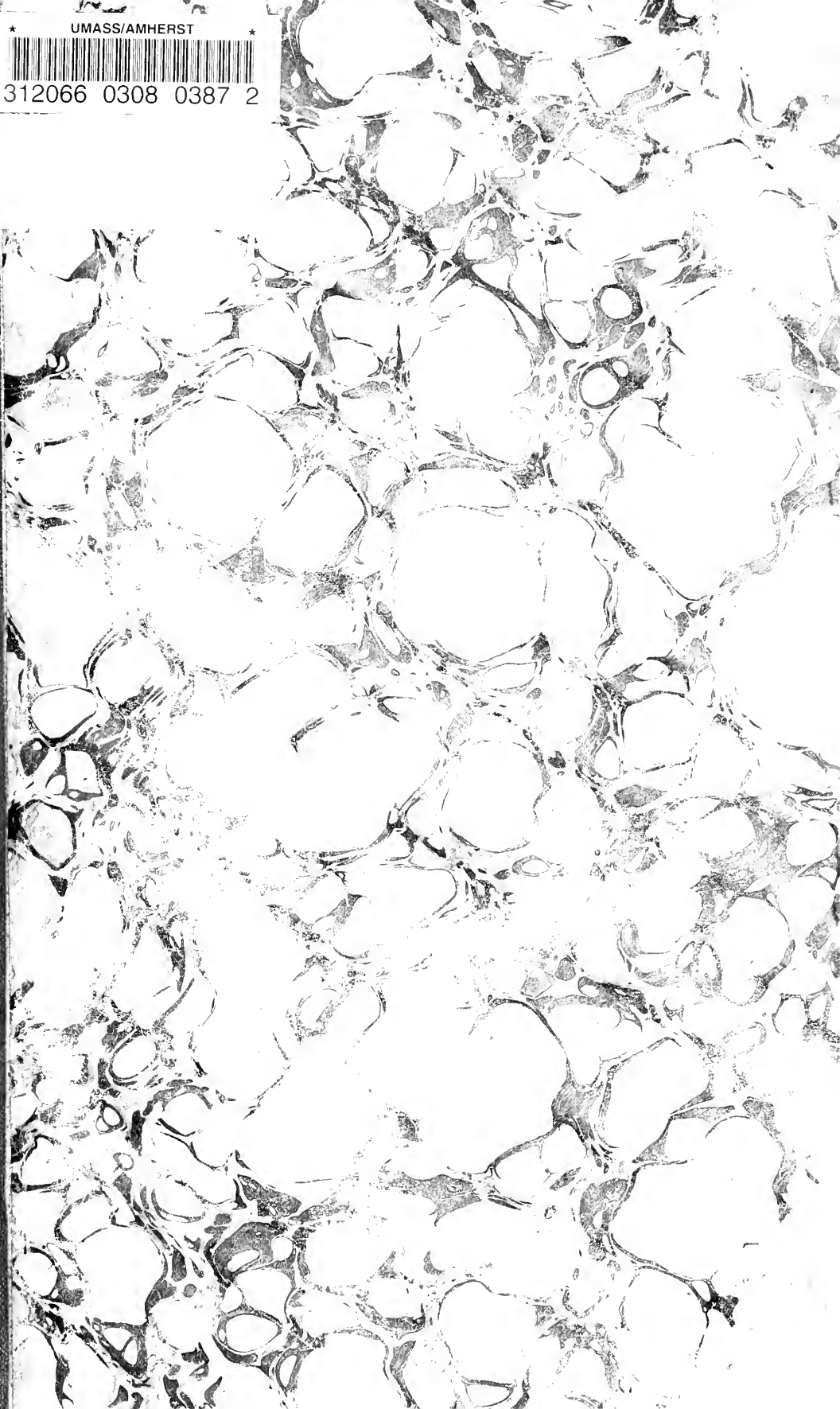
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THE
GENESEE FARMER:

A MONTHLY JOURNAL DEVOTED TO

AGRICULTURE & HORTICULTURE,

DOMESTIC AND RURAL ECONOMY.

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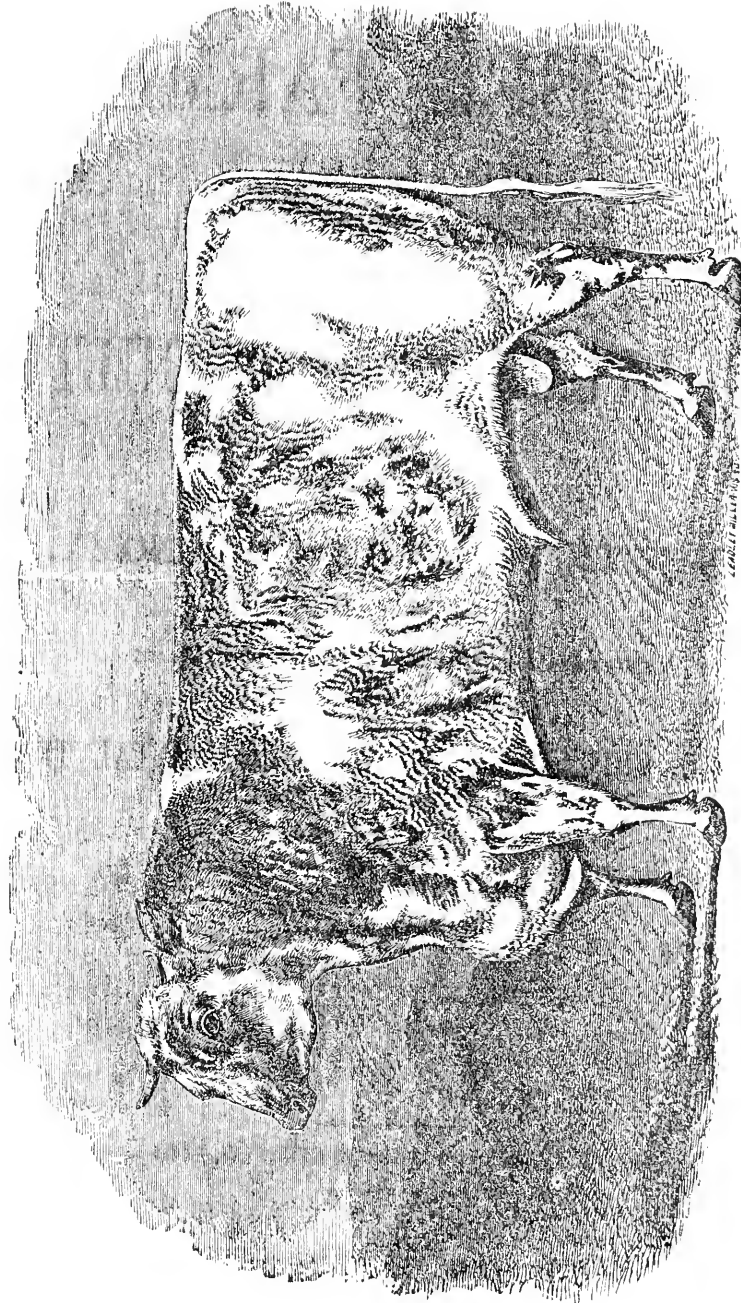
DOMESTIC ANIMALS, FRUIT AND ORNAMENTAL TREES,

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SHORT-HORN BULL, "MASTER BUTTERFLY."

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THE Genesee Farmer

PRACTICAL AND SCIENTIFIC FARMERS OWN PAPER

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No. 1.

WALKS AND TALKS ON THE FARM.—NO. I.

I ASKED one of our most experienced Rochester millers to-day what was the cheapest food for horses? After a moment's reflection he answered:

"Ground peas."

Peas, he said, were "more natural" to horses than corn. When ground they make very strong feed. I have no doubt that horses at hard work would do well on cut feed—say half hay and half straw—moistened with water and dusted over with shorts and pea-meal:

With hay at \$20 per ton, it behooves us to be as economical as possible; but we must not starve our stock. That is always poor economy.

If steaming food for cattle and horses will ever pay, it will pay this year. I have just bought one of Prindle's steamers, but have used it but little as yet. I intend to steam chaffed corn-stalks and straw, mixed with a few small potatoes and pumpkins for the cows. One objection to feeding too many corn-stalks is that they hurt the gums of the cows. Steaming would take off the sharp edges of the stalks, and make them more digestible.

My neighbor, Deacon B., was disposed to laugh at me to-day for estimating corn-stalks as worth as much for manure as wheat straw.* He said one load of stalks would make as much manure as five loads of wheat straw. In rotting down a heap of straw he said he had been astonished how little manure it made.

The Doctor happened to be present, and the Deacon asked his opinion. "Well," said he, "if the corn-stalks are cut into chaff, I should prefer them to wheat straw as manure." What could a layman say in reply to a D. D. and a Deacon? I could but excuse myself by saying that I was "open to conviction," and only gave it as an opinion, acknowledging that we had no reliable analyses to determine the point. I question very much, however, whether a ton of corn-stalks are worth much more for ma-

nure than a ton of wheat straw. The fact that they do not rot down so much, but make more bulk, is no proof that they are more valuable. You may say the same thing of saw-dust!

If you have a good cutting-box, driven by horse power, I believe it would pay to cut up all the corn-stalks simply for the greater ease of handling the manure.

The Deacon is feeding a cow that he intends to kill in a few weeks for his own use. "Nothing like corn-beef," he says, "for hard-working men." His cow is a good one, with a slight dash of Shorthorn blood in her, and thrives surprisingly under the fostering care of the Deacon.

The Doctor said he had a cow last year that beat her. He keeps but one cow. He buys a new milch cow every spring, and sells the old one for beef the day he gets the new one. He milks her up to the day he sells her to the butcher. It is a mistake, he says, to suppose that you can not fat a cow while she is giving milk. The cow he referred to gave nine quarts of milk the day she was butchered. She dressed over 1100 pounds of beef, and had 161 pounds of rough tallow in her! The butcher paid him \$49 for her, but told him afterwards that he would give \$60 for another just like her. The Doctor is a great friend to dumb creatures of all kinds. He believes thoroughly in comfortable stables, succulent roots and warm corn-meal pudding.

He frequently asks me why I do not, in the *Genesee Farmer*, urge farmers to pay more attention to feeding their young stock, and especially to provide warm and comfortable sheds for them. I tell him I have done so. "Well," says he, "do it again. Nothing is more important." The Doctor is right. But what can be done to correct the evil? Farmers know that it is poor economy to expose their cattle to the fierce blasts of our Northern winters; but some of them lack *energy*, and not a few lack the means to provide better buildings, sheds, &c. There are farmers who have barns enough, but they are not properly arranged. The horse-barn is in one place, the cow-barn in another, and the grain-barn in another—all detached from each other. Now if a

*See *Genesee Farmer* for November, page 320. It is there remarked: "We have no reliable analysis of corn-stalks, and estimate them as worth for manure as much as wheat straw."

proper site was selected and these barns placed so as to form a quadrangular barn-yard, sheltered from the north, west and east, and only open to the south, it would certainly be far better for the animals and more convenient for the farmer.

I have a few head of young cattle that are in good condition. The butcher offered me \$35 per head for them, but I think beef will be higher in a month or two. I wrote to John Johnston asking his opinion in regard to feeding them. In reply he says:

"If your steers have never been fed grain, they will do as well or better for the first month on three or four quarts of corn-meal, (*not* corn and cob meal,) as they will on double the quantity. Your steers will eat twenty pounds each of good hay per day, and on the average say four and a half quarts of meal per day until the first of March; and if the hay is first-rate, and they are properly attended to, with good sheds, well littered, and the steers of the right kind, you may expect them prime beef in ninety or a hundred days.

"You will, perhaps, see no gain for the first month, and perhaps there will be none, but the third month they will gain more than during the two first. Cattle that have been accustomed to grain [the previous winter] will improve rapidly from the start."

Beef cattle, he thinks, must certainly advance greatly before spring; but whether it will pay to fatten them depends much on the kind of cattle.

"If you were here," he writes, "I could show you the right kind of cattle to fat. I have a pair of five-year olds that gain more per day than any I ever fed."

I hope Mr. J. will inform us, through the *Farmer*, how much they gain during the winter.

He adds that on account of the high price of hay and grain many farmers in his neighborhood are selling off their cattle at ruinously low prices; and some who had bought sheep to fatten are selling them at a loss rather than to run the risk of feeding them.

Rothschild, the great banker, and the richest man in the world, was once asked how he made his money. "By buying," he replied, "when everybody was selling, and selling when everybody was buying."

The principle is undoubtedly a correct one; but the trouble is how to ascertain when everybody is selling. A great many people are selling their cattle and sheep, but still there are many others who are holding on for higher prices—especially of sheep. It can hardly be possible that sheep will be lower before spring, but it is an open question whether they will be enough higher to pay the cost of keeping, attendance, &c.

I got a letter from my friend "S. W." this morning. He says there can no longer be any doubt that on very rich, well-drained land the 16 or 18-rowed Southern Ohio Dent corn will yield one-third more to the acre than any corn of the round Flint variety. His neighbor, Joseph Wright, has raised the Ohio Dent corn for several years. He puts on twenty two-horse loads of manure to the acre, and I have myself seen some of his corn-stalks that were twenty feet high. It is essential to get the seed corn, at least every other year, from the Southwest. If the seed raised here is planted, the tendency is to a shorter kernel and a larger cob.

But it is getting dark. Let us go into the house. Have you seen Mr. Marvel's new book, *My Farm of Elgerwood*. I do not know when I have read anything which pleased me so much. It is charmingly written, and quite as fascinating as a romance. A few years since he bought a farm near New Haven, and in this book gives us some account of his experiences of New England farm life.

Having concluded to "turn milkman" and adopt the practice of soiling, he removed most of the old fences, and threw eighty acres of flat land into one field. The neighbors, who cling to two-acre lots and pinched door-yards, opened their eyes and mouths very widely at this. "The Squire's making this ere farm into a parade-ground, a'n't he?" said one. "Ef a critter gets loose in such a *ravage* as that," said another, "I rather guess he'll have a time on't." "There won't be no great expense for digging 'o post-holes," truly remarked a third.

His cash account the first year showed a *loss* of \$1.652. This was to be expected. The third year he realized a profit of \$615. This has a more cheerful look, but is, as he says, "not gorgeous." The fifth year his profits were \$983, and besides his farm is in better heart and much improved in appearance and value.

He gives an amusing account of his experience in buying cows. One man tried to sell him an old cow with the tell-tale wrinkles rasped out of her horns. On looking in her mouth he found that there was not a tooth in her head. On looking accusingly at the rural owner, who was quietly cutting a notch in the top rail of his fence, he remarked:

"Waal, yes, kinder rubbed off; but she bites pooty well with her gooms."

Another man sold him a cow that was admirable in every point of view, but she proved to be an inveterate kicker.

"The books recommend gentleness for the cure of this propensity; so does humanity; I concurred with both in suggesting that treatment to Patrick.

"Gintle is it? And bedad, sir, she's tooould for a cure. I'm thinking we must tie her legs, sir; but if ye orders it, bedad, it's meself can be gintle.

"Soh, Moolly—soh—soh (and a kick); soh, ye baste (a little liveligh), soh (and a kick)—soh, blast ye!—soh, Moolly—soh, Katy—SOH (and a crash); ooh, you ould baste ye—take that!" and there is a thud of the milking stool in the ribs.

"The 'gentleness' of Patrick is unavailing. But the cow is an excellent animal, and not to be hastily discarded. Milker after milker undertook the conquest, but with no better success. The task became the measure of a man's long-suffering disposition; some gave over, and lost their tempers before the first trial was finished; others conjured down the spirit by all sorts of endearing epithets and tenderness, until the conquest seemed almost made; when suddenly pail, stool and man would lapse together, and a stream of curses carry away all record of the tenderness. We came back at last to Patrick's original suggestion: the legs must be tied. A short bit of thick rope passed around one foot and loosely knotted, then passed around the second and tied tightly in double knot, rendered her powerless. There was a slight struggle, but it was soon at an end; and she made no opposition to the removal of the thong after the milking was over. With this simple provision, the trouble was all done away; and for a whole year matters went well. But after this, there came a reformer into control of the dairy. The rope was barbarous; he didn't believe in such things; he had seen kicking cows before. A little firmness and gentleness would accomplish the object better; God didn't make cows' legs to be tied. The position was a humane one if not logical. And the thong was discarded.

"Well, Patrick," said I, two days after, 'how fares the cow?'

"And begorra, it's the same ould baste, sir."

"A few days later I inquired again after the new regimen of gentleness and firmness.

"Begorra," said Patrick, 'she's kicked him again!'

"A week passed; and I repeated the inquiries.

"Begorra, she's kicked him *again!*" screamed Patrick; 'and it's a devil's own bating he's been giving the ould baste!'"

The moral of the story is—if a cow is an inveterate kicker, tie her legs with a gentle hand, or kill her. Nothing will effect a cure.

The last Report of the Commissioner of Agriculture, (or as it was formerly called the Patent Office Report,) is decidedly the best volume yet issued. In fact, I do not know of any work on agriculture that contains so much real practical information. The introductory article by Commissioner Newton presents a broad and comprehensive view of the importance of agriculture.

"The United States," he says, "are, and must always remain, an agricultural nation. For this the soil, the climate, the institutions of the country, and the age of the world, have peculiarly fitted them, and it is the duty of the Government to take all possible measures to secure to the agriculturists of America the fullest benefits of its ample resources.

"It is hard to realize, and yet as true as Holy Writ, that some who shall read, to-day, these lines, will live to see one hundred millions of freemen dwelling in this dear land of ours. With peace and union restored, based on equity and freedom; with

all the conditions of agriculture and mental progress fulfilled; with iron bands stretching from the pines of Maine to the Golden Gate; with the hum of factories on ten thousand streams, and swift-winged commerce flying to distant lands, what pen can sketch the possibility of this young giant of the West?"

Levi Bartlett furnishes an article on "Wheat-Growing in New Hampshire." He has been quite successful in doing so, and is of the opinion that it would be for the interest of the farmers of the Old Granite State to raise more wheat and purchase less Western flour.

The ablest article in the Report is under the modest heading of "Remarks on the Physiology of Breeding;" by S. L. Goodale, of Maine. It abounds in interesting facts.

The name of the writer of the article on the "Condition and Prospects of Sheep Husbandry in the United States" is not given, but it is evidently from the pen of a master.

Sanford Howard, Editor of the *Boston Cultivator*, gives an interesting description of the little, hardy Irish cattle known as the Kerry breed. It has been introduced into this country, and will doubtless prove useful on the poor hilly soils of some sections of New England. They thrive on the coarsest food and yield very rich milk, while they fatten easily when liberally fed.

J. J. Thomas contributes an article on "Farm Implements and Machinery," which, like everything from his pen, abounds in useful suggestions and important facts. He states that the capital invested in farm implements in the United States is probably not less than *five hundred millions of dollars*.

ROYAL ASHLEAVED KIDNEY POTATE.—We have received a few of the Ashleaved Kidney potato from Mr. Rivers, of Sawbridgeworth, and found them when cooked a mass of flour. The flavor is excellent, and with the earliness and prolificacy which it is said to have, we do not know any merit it ought to possess which it has not.—*London Journal of Horticulture*.

Is this a new potato? We were acquainted with a variety bearing this name, in England, twenty years ago. It was the earliest and best potato we have ever seen. It closely resembles the Mexican.

ENORMOUS YIELD OF WHEAT FROM A SINGLE GRAIN.—The Brighton, (Eng.) *Guardian* states that at the Lewes Flower Show, Mr. Spary, of Chailey, exhibited a bundle of wheat containing fifteen hundred and fifty-one ears, *the product of a single grain*. This enormous yield was obtained by sowing the seed in June, and dividing the parent plant into three parts. In a month or so these plants were re-divided and again planted, and in the following spring the plants were again divided.

DAIRY FARMING.

EXTRACTS FROM AN ADDRESS DELIVERED BEFORE
THE ST. LAWRENCE COUNTY AGRICULTURAL
SOCIETY, BY JOSEPH HARRIS.

THE farmers in the dairy districts make a great mistake in not feeding their cows with richer food. If it requires twenty-five pounds of hay per day to keep a cow in a condition in which she can neither lay on fat nor give milk, it is evident that the butter and cheese which we get is derived from the food she eats over and above this twenty-five pounds necessary to keep her in a stationary condition. To feed only twenty-five pounds would manifestly be absurd. Last spring I was in Washington, and went out to see the army in Virginia. I passed hundreds of heavy wagons drawn by three pairs of mules. The roads were almost impassable, and the poor mules labored hard to draw the wagons through the deep mud. Half a tun of hay seemed to be a good average load, and I thought the mules would eat about as much as they were able to draw. Now supposing it took two pairs of mules to draw the empty wagon, it is clear that the load was drawn by the third pair. There were three pairs to each wagon and its load. Two of them drew the wagon and the other pair drew the load! It is so in feeding cows; twenty-five pounds of hay are required to keep the cow alone going—in other words to draw the wagon—and if we feed another five pounds, or, in other words, attach on another pair of mules—all the load of milk is drawn or derived from the five pounds of extra feed. You feed thirty pounds of hay per day, but it is only the five pounds that produces milk. Now do you not think it would be better to feed another extra five pounds, and get as much milk for it as you have from the first thirty pounds? But, you say, the cow's stomach will only hold thirty pounds of hay or straw. Very well, then take out a few pounds and supply the place with some richer food, such as pea or bean meal, mixed with a little corn meal or shorts. In this way you can get the cow to eat the other extra five pounds. You will get more and richer milk, and more and better manure.

One thing in the returns of the last census of this State rather surprises me. The amount of cheese made in this State in 1860 was one million, one hundred and ninety-three thousand, one hundred and twenty-five pounds less than in 1850. Americans are not great cheese eaters, but I had supposed that there was sufficient foreign demand to insure remunerative prices. It seems plain that if the farmers of the State can afford to send wheat to England and can compete with the English growers, our cheese makers can certainly do so; because the freight on one hundred dollars' worth of cheese is not as great

as on one hundred dollars' worth of wheat. If cheese making does not pay it must be for one of two reasons: either butter commands a relatively higher price at home, or the quality of the cheese is not such as is wanted abroad.

I find from the last *London Mark Lane Express* that English cheese is quoted at 12 1-2 cents to 15 cents per pound; and American at only 8 1-2 to 11 1-2 cents per pound—the English cheese bringing 4 cents per pound more than the American.

Now this difference in price is enormous, for it must be recollected that the increase in price is all profit. I do not know how much profit you ordinarily make on cheese, but at present rates I should not estimate it at more than 2 cents per pound, after allowing a fair compensation for labor, etc. Now, if American cheese in England brought the same price as the English cheese, that is, FOUR CENTS per pound more than at present, the profits would be three times as great—for the cost of sending it to market would be the same in either case.

John Bull is a great cheese eater, and he will be very glad to get his cheese from this side of the Atlantic if he can get it a little cheaper than it can be had anywhere else. I think it may safely be asserted that in everything that relates to the mechanical operations of cheese making American dairy men are ahead of the Old World. I have visited the best dairy districts of England, and have seen nothing to be compared with the appliances used in the neighboring counties of Lewis and Herkimer, and I doubt not in St. Lawrence, also. Take Rowe's Western Reserve Cheese Vat and there is nothing equal to it in the world, unless you have something better in this section. With such an apparatus and one of your simple mechanical presses, cheese making is nothing but a pleasant pastime.

Come with me into a Cheshire dairy. It is 5 o'clock in the afternoon, and punctual to a moment the cows, forty in number, are brought to the yard and tied up. The mistress and her two stalwart maids, with a man to help them, sally forth with their clean, bright tin pails. Now all is still; not a sound is heard save the dropping of the milk as it flows regularly and rapidly from the udder to the pail, which is held up from the ground firmly between the knees of the milker. An old man carries in the milk to the dairy, and by 6 o'clock the forty cows are milked, and stripped, and on their way to pasture. Four o'clock in the morning finds the maid and her mistress in the dairy taking off quickly and almost slyly—for she is a little ashamed of it—the cream from the surface of last night's milk. It is then put into a large, round, heavy old fashioned cheese tub—a portion of it being heated by putting it in a tin standing in a cauldron of boiling water. By 5 o'clock the old man has the cows

again in the yard, and by six the new milk is in the tub mixed with that of last evening, and with the portion that has been heated. The whole is at a temperature of about 82°. The rennet is then added; the tub covered with a cloth, and they then sit down to breakfast.

In an hour the cheese has come. It is then carefully and gently cut up into small, square pieces and allowed to settle. As it settles the whey is dipped off with a wide, flat bottomed, shallow tin. When nearly all the whey is thus removed, the tub is tilted on one side and the curd placed so as to allow the whey to drain off. A semicircular board is placed upon it, and two fifty-six pound weights are put on the board to press out the whey. The curd is then placed in a cloth and put under a hand press, and pressed till it is quite dry. It is then taken out, broken up and salted, and placed in a cheese mold with a cloth around it. It is now ready to be pressed, but where is the press? There in the corner stand three large square blocks of stone, the lightest weighs perhaps half a tun, and the heaviest three or four tuns. These are raised by means of a common screw. The freshly made cheese is placed under the lightest one and remains there till the next morning, when it is taken out, *skavered*, and a dry cloth put around it, and placed under the next heaviest press. The next day it is again removed, the cloth changed, and then placed under the heaviest press. *THREE days to press a cheese!* think of that, ye cheese makers of St. Lawrence, and bless your stars that you were not born in Cheshire!

You coagulate the milk, cut up the curd, scald it, draw off the whey, break up the curd, salt it, put it in the press, pull down the lever, and the whole is done. Unquestionably the American process, so far as mechanical appliances are concerned, is the more scientific. And the fact that American cheese has retailed higher in the English market than the best Cheshire, proves that cheese can be made by this process of the highest quality.

The differences between the two processes are: first, we *scald* the curd; and second, none of the whey is pressed out before the curd is salted. The process of scalding renders the curd firmer, and the consequence is that less labor and time are required in pressing. Scalding is, in fact, a quick way of pressing. But there is danger of scalding too much on the one hand, and pressing too little on the other. The higher we scald the less we need to press; but I am inclined to think we scald too much and press too little.

The chief fault found with our cheeses in England is that the whey is not all removed. Thus Dr. Voelcker, Chemist to the Royal Agricultural Society, has recently analyzed cheeses made

in different districts in England, and also some from America, and he found one of our cheeses was full of holes, badly made, and had a very strong smell. It was evident, he said, that the whey was not carefully pressed out in making. On the other hand, he analyzed one American cheese which he says was as nice as could be desired—exceedingly rich and of good flavor. But on the whole he came to the conclusion that good materials were even more thoroughly spoiled on this side of the Atlantic than in England.

I think that the evil lies not in the method we adopt—for I am satisfied that that is excellent—but in the want of due care in carrying it out.

But the one grand error in American cheese making, is the want of care in not ripening the cheese before it is sent to market. We all know that there is considerable difference between a good pear and a mellow one; between a Baldwin apple now and after it has been kept a few months to ripen. So there is much difference between curd and cheese. The curd is the green apple, the cheese the ripened fruit. If you were going to send hay to market you would not send the green grass fresh from the field, and yet you often sell your cheese when it is as green as grass.

In the Cheshire dairy, to which I have alluded—and which was celebrated for its cheese—none was ever sold until it was six months old. The cheeses were kept in a moderately warm room until thoroughly ripened and cured, with that outside mold so indicative to a practiced eye of a rich, fine-flavored cheese. I think this selling cheeses while still little else than curd, and allowing them to be jolted and jammed, and exposed to the greatest variations of temperature, is enough to spoil the best cheese that ever was made. The wonder is, not that cheeses so treated sell for 4 cents per pound less than the carefully ripened Cheshire, but that they sell at all * * * * * When the cows have plenty of food their milk is richer in butter and cream, or curd, in the fall of the year than at any other season. Dr. Voelcker found the milk of a dairy in August contained 3 1-2 per cent. of butter and 3 of curd. In November the milk of the same cows contained 5 per cent. of butter and 5 1-2 of curd. One gallon of the November milk would make nearly twice as much saleable cheese as a gallon of the August milk.

The great aim of dairy farmers should be, therefore, to provide the cows with a sufficiency of good food at this season of the year.

I have never tried it, but it strikes me that oats cut *while green* would make excellent fodder for milch cows. I know they are excellent for horses, and if a few peas are sown with the oats it is quite an improvement.

BREEDING HORSES.

THE last number of the *Journal of the Royal Agricultural Society* contains an article on breeding horses from the pen of W. Dickinson.

Horses, he says, should be bred upon a dry subsoil to make them sound in constitution, sound in wind, and sound in color, by which he means that whatever be the horse's color, it should be a deep, not a faint one. The surface, moreover, should be fertile; abounding in carbonate and phosphate of lime, to grow horses of full size, with plenty of bone and muscle. Upon this subsoil and this surface, you may expect sound, full-sized, healthy animals. A wet, spongy, clay soil produces delicate constitutions, defective wind, pale colors, and large, flat feet.

He advises selecting mares for breeding when three years old. They are more free from defects, cost less, and breed better than when older. He very properly contends that none but the best mares should be selected.

Mr. D. says he formerly thought there were no better cart horses in the world than the English; but in 1855 he attended the International Exhibition in Paris where he had sent some Shorthorn cattle. "There," he says, "my attention was attracted to a class of horse, I had never seen before. I looked at them and was astonished, seeing them drawing great long carts, as long as the English wagons, loaded with immense blocks of stone (not as ours are loaded in London with two or three blocks,) walking nimbly away the whole day from the pit to the building. These immense loads of stone made me think of the three or four dray-horses drawing at a much slower pace a few butts of beer through the London streets. These horses, walking so nimbly with these great loads of stone, were not so fat as our own favorites, but they seemed to be doing twice the work. Although leaner, they bore the strictest scrutiny; the more I saw them the more I admired them. Meeting Mr. Jonas Webb, I called his attention to them. He said he had never seen such before; he had observed a horse taking into the show yard an immense load of provender for the cattle, that astonished him beyond measure; he had resolved to try to buy him, but he lost sight of him that day and never saw him afterwards. I thought them so superior to ours, that I resolved to buy one to take home."

After considerable trouble he succeeded in finding one, called "Napoleon," and says:

"I have never once regretted the purchase. He has been worked on my farm ever since, almost always with mares. I have never had so good, quiet, active, and powerful a horse before. In no one instance has he given us any trouble. He is unlike our English cart-horses, for with great size, (sixteen and one-half hands high) and immense substance, he

shows a dash of blood. He has an Arabian head, not small, but of fine character, well proportioned to his size. The neck is very muscular and well turned, the shoulders large, very deep, without lumps on the sides, and oblique, such in shape as would not be objected to for a riding horse. The bosom open, the fore legs magnificent and very short, with great bone, hard sinews, and with but little hair upon them. His feet are perfect in shape, and perfectly sound in work; his back short, rather dipped, round shaped ribs, large loins, rather plain drooping hind quarters, very large thighs, low down, and tightly joined together with prodigiously powerful clean hocks, and very short hind legs, well under him. We never had a difficulty with the engine or thresher, or with anything in the mud that Nap. could not extricate us from. His stock are as good and kind as possible. It is a saying with the men that Nap.'s colts want no breaking. My mares are small and active; the stock are considerably larger than the dams, but so cleanly, that as foals they look more like carriage horses.

"I think the cart mares to work and breed should be of moderate size, from fifteen and one-half to sixteen hands. They should be long, low, wide and handsome, compactly made, with short backs, arching downwards, and with wide, table shaped loin. The legs should be short and clean, the bone large, especially behind. They should be good walkers, and as I recommend working the mares on the farm the high stepping action must not be overlooked.

"When the foals are weaned in the autumn, they must have shelter and be well kept. A few oats, cut roots, cut hay and a little bran, will do well for them till they go to grass in the following summer, during which time the colts must be castrated. In the winter they may again be kept in the sheds. They should never be allowed to get poor. They will be useful at three years old, and do half the work of horses, if kept in a cool, well ventilated stable."

In regard to carriage horses he says more attention must be paid to fine heads and necks than is necessary in the case of cart horses. They may be bred from mares that can do the work of the farm thoroughly well. They should be well selected and the high stepping action not overlooked. Such mares crossed with a thoroughbred horse produce excellent carriage horses. The colts must not be neglected in their early keeping. If they are starved when young and afterwards forced by high feeding, strangles, distemper, roaring, lameness, etc., will be the result.

Mr. D. thinks saddle horses should have the back bone slightly arched, while draught horses should be rather hollow backed. He thinks this very important.

Mr. D. thinks that while great improvement has

taken place in cattle, sheep and pigs, thoroughbred horses have retrograded. He attributes this in a great measure to the fashion of running horses when two or three years old, and to their being required to carry only light weights. He says:

"I saw the commencement of the evil; I now see the consequence. There was no longer any inducement to breeders to retain their great strong two year old colts; they could not run at that age, neither could they at three years old struggle with moderate sized horses. The best horse ever produced in England could not race at two nor at three years old; he was not only the fastest and stoutest of any period, but he was one of the most powerful; this horse was Eclipse. If he had been of these days, in all probability his fate would have been sealed at three years old; he would have been sold as a great slow brute to some foreigner, coming among us to make purchases at a small sum, as most of our large sized, unfurnished horses have been, till there is hardly one left."

He says they have now "two classes of horses—blood horses without substance, and strong horses without blood. Both are bad for common purposes."

"Our cavalry must feel this wonderful falling off. If they should be again brought to contend with some hostile power, it will be seen that although we have not lost the steel of our men we have lost the energy of our horses. Let it not be overlooked that blood gives pace; pace is power. Blood carries weight; it is said that a thoroughbred horse carrying thirty-two stone for four miles beat the best and strongest horse that could be found, not thoroughbred. Blood gives life; the thoroughbred horse lives longer in work than any other. Our horses have fallen off wofully since the battle of Waterloo; and those of our friends now, who were opposed to us then, have been as much improved as ours have been deteriorated. The Emperor of Russia also has so improved the horses of his Imperial Guard that I believe he has ten thousand men better mounted than any ten thousand men in England or anywhere else."

PLANTING SORGHUM IN THE FALL.—It is well known that self-sown tomatoes start earlier in the spring and produce earlier fruit than those planted in the spring. The same thing has been observed in regard to sorghum seed that has fallen from the plants in the fall, and Mr. Mason, of Illinois, was induced from this fact to plant several acres of sorghum the past fall. The seed does not germinate until spring, but it is thought the crop will be earlier.

A PUBLIC CONVENTION of wool-growers will be held at Columbus, Ohio, January 5th. All persons interested in sheep and wool are invited to be present.

WHEAT CULTURE IN THE WESTERN STATES.

The recent Report of the Department of Agriculture contains an interesting article by Lewis Bollman, of Indiana, on the wheat plant.

Mr. Bollman has resided over thirty years in Indiana, and is consequently well acquainted with the agricultural capabilities of the West. The reason why the production of wheat in the Northwestern States prior to June, 1850, was so small he attributes mainly to the want of good market facilities. In the county where he resided the only market was Louisville, and that only during the Indian Summer weather of the fall.

"With his wagon and team the farmer carried his surplus wheat crop, at one load, ninety miles, at a season when the waters of the Ohio river were too low to permit shipments, and when the yellow fever at New Orleans had stopped all commerce at that city. The markets were without the least animation, and the usual Louisville prices were from 40 to 50 cents a bushel. If our farmers returned home with as much sugar and coffee as would supply the economical wants of their families, they accomplished all that they expected by their surplus crops of wheat. Of what avail would a larger crop have been? They therefore directed their attention to the raising of corn, feeding it to hogs and cattle, which carried themselves to market, even when corn production was ruinous to their soils."

The extensive introduction of railroads has changed all this, and during the last decennial years the increase in the production of wheat has been 70 per cent., while at no previous period have prices been so satisfactory to the producer. With the great increase of manufactures, and the consequent increase in the home demand, added to the amount regularly required by Great Britain, everything is favorable to the wheat producer of the United States.

Mr. Bollman says truly that "a cereal so universally grown as wheat is not limited in its growth to a particular kind of soil." "The red and yellow clays," he says, "sandy loams, or light carbonaceous soils are all well adapted to its production under the condition we generally find them *as to depth of snows* and the kind of wheat. * * * When the snow is not an adequate protection, the substitution of spring wheat obviates the natural difficulties to which the winter varieties are there subject." Mr. B. admits that there are portions of Michigan, Illinois, Wisconsin and Iowa where winter wheat is an uncertain crop.

Mr. Bollman well observes that a wheat soil should not contain too much carbonaceous matter or humus. Such soils are well adapted to the production of corn, but "rich clay soils," he says, "are found to be better wheat lands when the humus is much ex-

hausted." Manure, however, is necessary even at the West, and Mr. B. says "it should be a leading object of every farmer to persevere and increase its quantity."

Looking at the extent of wheat cultivation, especially in the West, it is obvious, he says, that barnyard manure can not be produced in quantities at all approaching the demands of that husbandry which should regard the fertility of the soil as one of the highest ends it can have in view. Special manures, such as guano, admissible near the seaboard and for products bearing a high price, can not be used in the Western States. The only means for general manuring is in turning under green clover crops and in hogging down others, such as corn, rye and oats.

"Besides returning to the soil so much vegetable matter, a green clover crop thoroughly pulverises it, a condition, as already observed, of absolute necessity to a vigorous fall growth of the wheat plant. The dryness of our summers, following heavy rains in the spring, so bake and clog our soils as to render them almost unfit for wheat cultivation, when deficient in vegetable matter. A winter's freezing could no more reduce these clods to a proper pulverization than the rotting of a green clover crop beneath them."

This is undoubtedly true, but still it must be borne in mind that plowing under clover, when continued for many years, greatly increases the humus in the soil, and this Mr. B. admits is not desirable. It may be many years, however, before any deleterious effects are observed from the practice of plowing in clover, instead of eating it off on the land.

We hope to continue this subject.

SORGHUM AT THE WEST.

OWING to the great drouth of the past summer, and the early frost, the crop of sorghum at the West has turned out badly. Mr. Mason, of the Illinois Central Railroad, planted 250 acres, and obtained from it only 105 barrels of sirup and 400 barrels of vinegar. The cost of raising and manufacturing was \$2,300. After deducting the market value of the vinegar, the cost of the sirup would be about 40 cents a gallon. In an ordinary season he would have had 1,000 barrels of molasses, instead of 105 barrels, and the cost per gallon would have been very trifling. Notwithstanding the unfavorable results of the past season, Mr. Mason has concluded to plant this year from 250 to 400 acres.

THE State of Illinois has received from the general Land Office, script for 480,000 acres of land—being the full amount appropriated by Congress, under the Agricultural College grant.

PRIZE TURNIP CROPS.

WE are indebted to Mr. W. A. Cooley, Secretary of the Hamilton and Wentworth Agricultural Society, Canada West, for the report of the committee appointed to examine the crops of turnips of not less than two acres, entered for premiums.

The first prize was awarded to Thomas Stock, of East Flamboro', for a field of eight acres. The yield was twenty-five tuns, six cwt. and forty-five lbs. per acre. The soil was a sandy loam, oat stubble, manured (we presume in the fall) with eighteen loads of farm yard manure per acre, and plowed in the fall, and twice plowed in the spring; seed, Matson variety, sown 13th and 16th of June, at the rate of three pounds per acre; cultivated them three times and hand hoed them twice. The seed was grown by Mr. Stock himself, and the committee well observe that this fact indicates that Canadian grown seed is quite equal if not superior to that which is imported. We think there can be little doubt on this point, and it would be well for farmers to select the best bulbs and grow their own seed.

The second prize was awarded to John Weir, of West Flamboro', also for a field of eight acres. The yield was twenty-five tuns, no cwt. and eighty-five pounds. The ground was prepared in the same way as Mr. Stark's; but in addition to the manure, (twelve loads per acre,) three hundred pounds of bone dust per acre was sown in the drills. The drills were twenty-eight inches apart. Seed sown from the 6th to the 11th of June.

The third prize was awarded to W. A. Cooley, of Ancaster, for a field of five acres of Purple-top Swedes. Yield, twenty tuns, eighteen cwt. and ninety-five pounds per acre. Soil, clay loam, and black alluvial; after oat and pea stubble; twenty loads of farm yard manure per acre; land plowed in the fall with trench plow, cultivated in spring, plowed again, harrowed and rolled the beginning of June; drills twenty-four inches asunder; seed sown 16th to 25th of June at the rate of three pounds per acre.

The fourth prize was awarded to John Kelly, of Ancaster, for two acres of Skirving's and Laing's Swedes. Yield, twenty tuns, fifteen cwt. and ten pounds per acre. Cultivated very similar to the above.

POTATO MONA'S PRIDE.—This is a new variety which has taken the first prize at the Manchester and Liverpool Agricultural Societies, held lately in Cheshire, the best potato producing county in England. It has also taken the prize at the County Kildare Horticultural Exhibition.

JOHN SNELL, of Edmonton, C. W., the well-known breeder, took 185 prizes for his cattle and sheep, at the agricultural fairs last fall, amounting to \$883.

WOOD ASHES FOR CORN.

EVERY bushel of wood ashes applied to the corn crop is worth one dollar. The truth of this assertion has been repeatedly demonstrated by the results of experiments accurately conducted. On all light soils, the action of ashes is highly energetic and salutary; they exert a warming and invigorating influence, and promote the rapid growth of almost every species of production.—*Michigan Farmer.*

There are many soils on which unleached wood ashes have a beneficial effect. It is quite probable that the light sandy soils of some portions of New England, New Jersey and the eastern counties of this State, are deficient in potash, and that an application of ashes would there prove exceedingly useful. But to assert that ashes are worth one dollar a bushel as a manure for corn, is absurd!

In some experiments made by the writer, with various manures, on Indian corn, unleached ashes had little or no effect. The soil was the ordinary sandy loam of this section, and, being at considerable distance from the barnyard, it had never been manured. In fact, it had been "run" pretty hard. Now, one would think if "every bushel of wood ashes applied to the corn crop is worth one dollar" they would have been decidedly beneficial on this soil; but look at the result:

*Bushels per
acre of Ears.*

No manure.....	67
100 lbs. plaster, (gypsum or sulphate of lime).....	75
400 lbs. of unleached hard wood ashes.....	68
400 lbs. of ashes and 100 lbs. of plaster (mixed).....	75
150 lbs. sulphate of ammonia.....	105
150 lbs. sulphate of ammonia and 400 lbs. ashes.....	97

Looking at the results of these experiments, what should be said of the assertion that "every bushel of ashes applied to the corn crop is worth one dollar."

Ashes alone give an increase per acre of only one bushel of corn in the ear.

Plaster gives an increase of 11 bushels of ears. Plaster and ashes together give an increase of 11 bushels of ears—no more than the plaster alone.

Sulphate of ammonia gives an increase of 38 bushels of ears. Sulphate of ammonia and ashes give an increase of 30 bushels, or 8 bushels less than when sulphate of ammonia alone was used. (We suppose this result was due to the action of the ashes in setting free some portion of the ammonia. They were sown separately, but probably came in contact in the soil.)

Judging from the results of these experiments, unleached wood ashes have no very marked effect as a manure for corn—at least in this section.

SHRINKAGE OF HAY.—The loss upon hay weighed July 20th, when cured enough to be put in the barn, and again February 20th, has been ascertained to be 27 1-2 per cent. So that hay at \$15 a ton in the field is equal to \$20 and upward when weighed from the mow in winter.

CAN WE COMPETE WITH THE WEST IN GROWING WHEAT?

WE have always contended that the farmers of Western New York need not fear competition from the West in the production of wheat. Our soil is naturally adapted to wheat culture, and the freight on such a bulky article is equivalent to a protective duty of 20 or 30 per cent.

In the case of pork, beef, wool, and other concentrated products, we are brought more on a level with the rich, new land of the West—the freight on a hundred dollars' worth of these articles being very much less than on wheat and corn.

A correspondent of the *Genesee Farmer* at St. Peters, Minn., writes:

"Farmers are receiving good prices here: oats, 60 cents; corn, 50 cents; barley, 70 cents. Our main crop is wheat, which can hardly be said to have any sale at present, as buyers only offer 50 cents a bushel, and farmers will not sell except to satisfy some pressing want. Sheep and horses are being rapidly introduced, and this will yet be a great wool country."

The crops which have a local demand are in request and bring good prices, but in the case of wheat, which has to be sent East, the price is comparatively low, owing to the fact that the freight amounts to at least half the value of the wheat after it arrives in New York.

Freight may not always be as high as it is now, (although at the present time it is very much lower than it has been for two years past) but it must always, as a rule, be sufficient to insure the farmers of Western New York enough more per bushel to enable them to compete with the West.

Our object in calling attention to these facts is not to undervalue the advantages of locating at the West, but simply to urge the farmers of this section to pay more attention to wheat culture. We believe the Genesee Country will always maintain its reputation as a wheat-growing district.

AGRICULTURAL IMPLEMENTS AT THE WEST.—

The *Illinois Farmer* says it receives numberless complaints in regard to the two-horse cultivators manufactured in the West. Bad timber, green timber, poor iron and worse steel are all found in the catalogue of ills. Tires running off, shovels, wood-work and bolts breaking—good for the smiths, bad for the makers, who have, in most cases, warranted their work, and very bad for the farmer, who loses his time. The *Farmer* says: "This won't do; a change must come over the spirit of your dreams, or the profit of your work will melt away. Manufacturers of agricultural implements have something yet to learn—at least out West; they must use better and more thoroughly seasoned material. As a general thing, our Eastern made tools are better on these accounts. A little more competition, gentlemen, will do you no harm."

HORSEBACK RIDING.

A "PRAIRIE DOCTOR" gives in the *Prairie Farmer* the following rule for determining the proper length of the stirrup strap for horseback riding:

"Mount the horse and seize his body with the thighs and legs, as a good rider does, when his animal threatens mischief. By this effort, the knees will be thrown a little upward and forward. Now let the stirrup strap be so arranged as to have the stirrup hang just so that your feet will rest in it, when held horizontally."

"It is evident," he says "that the strap should be of such length as to be of most service when most needed. Here you are in the attitude best adapted to secure a firm seat, and your foot is just at the point where its power of retaining the stirrup is greatest. By the motion of the ankle joint there is a play of more than four inches—two up and two down—which will enable you to guard against surprise, and loss of foot-hold. When your hold on the horse is somewhat relaxed, the toe is elevated in the style rendered classic by the pictures."

We think this rule would make the stirrup straps too short, both for ease and elegance in riding. The truth is, most people depend altogether too much on the stirrup. All young riders should practice riding *without* stirrups, depending entirely on the knees to enable them to retain their seats. After they have acquired the habit of holding on with the knees, they can then use stirrups, merely, however, for ease in riding.

If a person trusts to the stirrup, and his foot chances to slip in a sudden start, he is almost certain to be thrown.

Small ponies are the most difficult to "stick." A boy that can ride a tricky pony will, in after years, be in little danger of being thrown from a larger horse. They shy so quickly and stop so suddenly that a careless rider will find himself on the ground before he knows that anything unusual has occurred; and this is especially true if he trusts to his stirrups.

LEAPING.—If the foot-marks of a good horse that has galloped over turf be measured, it will be found that in every stride his four feet have covered a space of twenty-two feet. If, in cold blood, he be very gently cantered at a common sheep-hurdle, without any ditch on one side of it or the other, it will be found that he has cleared, or rather has not been able to help clearing, from ten to twelve feet. In Egypt, an antelope chased by hounds, on coming suddenly to a little crack or crevice in the ground, caused by the heat of the sun, has been observed at a bound to clear thirty feet, and yet, on approaching a high wall, the same animal slackens his pace, stops for a second, and then pops over it.—*The Horse and his Rider.*

POINTS OF SHEEP.

A CORRESPONDENT of an English paper gives the following list of points in a Leicester sheep, with their appropriate value. He suggests that something of this kind should be adopted by Agricultural Societies for the use of judges. We have them for cattle, why not for sheep?

Head,	2
Neck,	3
Collar,	2
Blades,	3
Chines,	3
Back,	3
Loins,	2
Hips,	2
Rump,	2
Shoulder kernel,	1
Outside shoulder,	1
Setting on and form of four legs,	2
Width and length of breast,	3
Depth of rib,	2
Belly,	2
Leg of mutton,	4
Hock joint and hind legs,	2
Flesh,	6
Wool,	4
Symmetry, viz: straight line from back of poll to near the rump,	3
Girt at back of foreleg, close to elbow, so great that the hind quarters are hidden when facing the sheep,	5
Size with symmetry,	5
Total,	63

Twenty-two points, sixty-three marks.

A sheep possessing any one of the following bad points should be excluded by the judges, however good it may be in its general points:

1. Want of girt at back of elbow to make its fore hide its hind quarters.
2. Bad neck.
3. Badly placed blades.
4. Deficient chines.
5. Bad leg of mutton.
6. Narrow breast, with badly placed forelegs.
7. Deficient wool.

MAKING NEW HOMES.

To most people raised amid the society and luxuries of long-settled cities, or even country regions, there is something most terrible in severing the old ties—in exchanging the friends, the comforts, for a life on the frontier. To them, it is much like banishment to Botany Bay, or the Dry Tortugas. But, we apprehend, should they once make the experiment, they would find much that is pleasant, much that would engross the mind and furnish a healthful excitement. We have heard intelligent gentlemen and ladies, used to all the luxuries that wealth and position could bestow, admit that the happiest part of their lives had been spent in the little log cabin, with its ample fire place, its single window, and its rude, scanty furniture. They were such people, of course, as have very great stores of enjoyment within themselves—sincere lovers of nature in its freest moods, and who have fathomed much of the hollowness of fashionable society.

The rightly developed and educated mind can

hardly fail to find delight in the establishment of a rural home. The house and out-buildings, however rude, planned and built with one's own mind and hands, every tree and vine planted by one's own direction, the virgin soil turned, the seed scattered and the plants tended, till the maturity of autumn crowns the whole, the flock started from small beginnings, and steadily growing in numbers and beauty; what an eager, pleasant interest clothes all. The farm, the trees, the cattle, all become a part of the proprietor. They grow old together, and, like continued friendships formed long ago, new ties constantly bind them together. The soil and all therein is one's own. There is no possession on earth like it.—*Prærie Farmer*.

FARM WORK FOR JANUARY.

PLANS should be now made for the coming year. If not already accomplished, prepare to lay out the farm in regular fields, and introduce a good rotation, which will enable the farmer to carry on all his labor with clock-work regularity, to keep clean fields, to preserve their fertility, and to prevent confusion, so often resulting from too much work for the force at particular periods.

There are a number of points to which the skillful farmer should direct his attention, before the spring work opens.

One of the most important is to prepare for farm accounts, by procuring suitable blank books and arranging the headings. He should have a memorandum book to carry always in his pocket, to note down anything that occurs to him, at the moment, and before forgotten. Each field or crop should have a page devoted to it, and all outlays and profits should be carefully recorded. His farm should be well laid out, measured and mapped—which will be a pleasant winter's task. And his granaries should be accurately measured and graduated, to show quickly the number of bushels of contents. A scale for weighing his domestic animals will pay for itself every year in the information it will afford him in relation to feeding.

He should keep accurate accounts with all his neighbors, if he would avoid difficulties; and all his accounts, both with his fields and otherwise, should be a model of neatness, distinctness and systematic order.

Farm laborers should be hired in season, as the best will always be engaged early; and it often happens that by paying a dollar or two more per month, a greater amount in valuable assistance will be secured—or, in other words, the best are generally the cheapest.

Keep all barns and sheds clean and in order, and prevent the untidy accumulations and confusion

which some premises witness. Keep all tools under shelter, provide a place for everything and let everything be in its place; and do not allow hens to roost on wagons, horse-rakes and carriages.

If corn-stalks can be cut very short by horse-power, before feeding to cattle, a large amount of saving will be effected.

Let cattle and all other animals be kept perfectly clean, comfortable and sufficiently warm. If they occupy sheds, great care should be taken to prevent cold currents between the boards, and especially under the sills, and high fences or other screens should prevent all winds from blowing in the front side. If kept in stables, still greater care should be exercised to preserve cleanliness and to provide sufficient ventilation. Many denounce stables for cattle on account of the foul air and foul keeping they are subjected to; while others denounce sheds on account of the cold currents which sweep through them. Use the curry-comb freely and regularly on both cattle and horses.

Cellars under dwellings should be frequently examined and kept scrupulously clean; the walls may be whitewashed in winter. Where there is danger of the ingress of frost at the windows, it is neater to provide double windows (on hinges, to hook up), than the more unsightly stuffings of straw. Pick over apples in cellars, and if there is an abundant supply, feed out those which threaten decay, in regular quantities, to milch cows.

Fill ice-houses. Cheap ones may be quickly con-



Fig. 1.—Rough or Shanty Ice-House, left open under the eaves for ventilation.

structed, in the form of strong board shanties, (fig. 1.) with a good, but not tight, floor. Place a few inches of sawdust on the floor, pile up the ice compactly in square blocks, leaving a space of 8 to 12 inches all around, next to the boards, to be filled with sawdust, trodden in, as the structure of ice is built upwards. Cover the whole with 8 or 10 inches of sawdust, and let plenty of fresh air blow through the shanty over the top. Ice will keep in this way as well as in the most costly and elaborate building. Chaff or finely-cut straw may be substituted for the sawdust, but being less perfect non-conductors, should be in thicker layers. Ice-houses built of boards, with double walls, (fig. 2) filled in with sawdust, although they do not keep ice better than those just described, save some labor by obviating the removal of the sawdust every

time they are filled with ice. But oven these should have a thin stratum of sawdust, say three or four inches, between the walls and the ice, which should

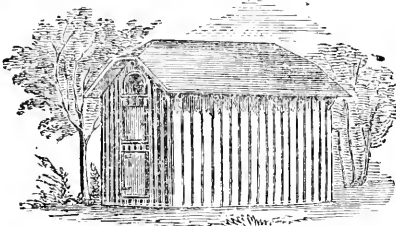
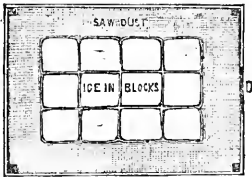


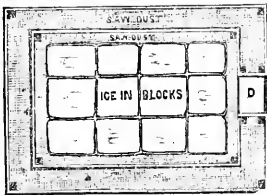
Fig. 2.—Ice-house above Ground. One door is enough for common sized houses.

be filled in and pressed hard as each layer is laid. The accompanying plans and views show the construction of these buildings. It will be seen in the view of the double-walled house, that a large ventilating



Plan of Single Wall or Board Ice-House.

window is placed in each end at the top; these windows should always be open. There are two double-doors at one end in large building, and one in small one. These are for filling and taking the ice out at differ-



Plan of Double-Wall Board Ice-House.

ent heights. Care should be taken that all the saw dust be pressed solid, and no cavities left. An ice house with one apartment, 8 by 10 feet, and 6 feet high (including a foot of sawdust all around), will keep ice enough for a moderate family.

Use carefully every means for saving manure. If straw is abundant, work it in freely as litter, and use it for absorbing liquid portions. If muck is accessible scatter it over the yard, or use it in compost heaps, in thin alternating layers with manure. Dead animals, bones, &c., should all go to the compost heap. Fresh manure may be now drawn out and spread evenly on grass lands—either as a top-dressing for meadows and pastures, or on the corn crop on sward to be inverted in spring. (There is little danger of manure being thus wasted by washing away, as the soil, when the first thaw occurs, will quickly absorb all the soluble parts as they flow over the surface.)

FUEL.—Draw, cut and split wood for summer use so that there may be no interruption after the spring opens. If the wood is to be drawn only a mile or two, the best way is to cut and draw a large quantity at a time, and saw it, with a circular saw, by means of horse-power. Then, immediately split and pile it, and it will season into fuel of the best quality—much superior to that which remains uncut for many months, until it becomes partly decayed.

Rats and mice should be exterminated from all farm buildings. A few good cats are the best and most easily set traps. Rat-holes in cellars may be stopped by a mixture of hydraulic cement and broken bottles.

Sheep should be kept under sheds, and their fine condition maintained by a feeding of about half a pint of corn daily to each, giving less early in winter, and more towards spring. A small regular feeding of roots would assist in keeping up their excellent condition.

Corn keeps best on the cob. Shell such only as is needed for winter use. The second quality, or smaller ears, if kept in narrow, well-ventilated cribs, will make good food for commencing the fattening of swine next autumn.

SELECTION OF TOOLS.—As farmers will probably find a scarcity of labor next summer, the difficulty may be remedied in part by procuring the very best of all kinds. The most costly will be the cheapest. A hand-hoe, for example, that will enable a laborer to do one-quarter more work, will pay its additional cost every day of the entire month it is used.

Snow on roofs, which often accumulates in eave-troughs, prevents the escape of rain or melting snow, and damming up, flows through the shingles and passes down through the house, should be timely scraped off, which may be done by the assistance of a ladder and a long-handled hoe.

Soot in chimneys should be burned or scraped out when the roof is wet, and thus prevent danger of fire by burning cinders falling out on the dry shingles, whenever the soot may accidentally take fire.

WEEKLY DISCUSSIONS.—Farmers will receive much valuable local information by instituting weekly discussions among their neighbors. A moon-light evening may be well spent in this way at a district school-house or town hall, and the agriculture of the district improved, and a neighborly feeling promoted. A part of the time might be well spent by reading short extracts from agricultural papers and discussing their merits.—*Tucker's Annual Register.*

AVOID a low and damp site for a dwelling-house. Build sufficiently distant from your barn and stock yard to avoid accidents by fire.

SHORT SERMONS FOR FARMERS.—NO. I.

WRITTEN FOR THE GENESEE FARMER.

THEREFORE the Lord sent him forth from the Garden of Eden to till the ground from whence he was taken.—GENESIS III, 23.

It is not unfrequently said that before the fall, man's wants were amply supplied from the spontaneous productions of the earth, without his care and attention. This is not true to the full extent generally supposed. It appears that the earth brought forth at first, food for man and beast spontaneously; *i. e.*, without man's planting and sowing. When Adam was created, he found fruits of the earth ready for his sustenance. So also did the lower order of creatures. But had he nothing to do but to reach forth his hand and pluck his food, during the period of his residence in Eden? It is evident he was obliged to work, by divine appointment. Before Adam was created, it is said, "there was not a man to till the ground." This is said as a reason for the exercise of the divine power in causing the earth to bring forth fruits without human care and labor. It implies that after his creation, man was to till the ground. That this inference is correct, is evident from the following statement: "And the Lord God took the man and put him into the Garden of Eden, to dress and to keep it." Here man, in a state of innocence, is placed by his Creator in a particular place, to do certain things—to dress and keep a garden. It is unnecessary to determine how he did this. But how could he do this without care and labor? We do not suppose it to have been painful drudgery to which he was appointed. It could not have been; for he was in a state of unalloyed happiness. But he was required to work. Idleness was no part of the enjoyment of Eden, nor will it be in the Heavenly Paradise. Adam had enough to do. No doubt much of the fertility and beauty of Paradise depended upon his labor. But he had no thorns and thistles to contend with. These appeared after the earth was cursed for his sin.

The text relates a transaction which occurred after the fall. God sent him forth from the Garden of Eden to till the ground. Now the labor of cultivating the earth had become greater—it was cursed for man's sake, so that it brought forth thorns and thistles. It required diligent and careful culture to produce his necessary food. "In sorrow shalt thou eat of it all the days of thy life." Are we to suppose the sorrow here intended to be that of labor simply? By no means. It includes all "the ills which flesh is heir to," many of which are obviated or alleviated by the culture of the soil. The sorrow with which we eat our bread arises from other causes rather than from husbandry. The severity of the labor rendered necessary by the curse inflicted upon the earth, is really a compensation for the change produced in

man by the fall. One change in him was an indisposition to labor diligently and continuously. He became by nature indolent. He needs the inducement of necessity to overcome this disposition. It was, therefore, compassionate in God to produce this necessity, in order, to some extent, to check the demoralising tendency of indolence.

REMARKS.—1. We see from this subject that tilling the earth is an honorable calling. Man, in his state of innocence, pursued this avocation, by the appointment of his Creator, who daily visited him while dressing and keeping the garden where he had placed him. When driven from the garden for his sin, tilling the soil was enjoined by divine authority, not as a curse, but for his good. Hence it is that agriculturists, as a class, are really not only the most virtuous, but the happiest of our fallen race. They pursue an avocation which God has honored. This we shall show more fully in future discourses.

2. We see, also, that none of us were sent into this world to be idle. Both before and after the fall, man was required to work. Hence, an abundance accumulated by former diligence is no apology for indolence. Whoever toils to reach a point where he may say, "Soul, thou hast much goods laid up for many years, take thine ease," let him remember the man who said this, to whom God said, "Thou fool, this night thy soul shall be required of thee."

3. We see from this subject, also, that tilling the earth as a daily avocation, is consistent with a life of communion with God. Adam was thus employed when God daily blessed him with his presence and counsel. No avocation brings man into so immediate connection with God in his providence as farming. He can not avoid feeling his direct dependence upon Him who sends the rain and the sunshine to crown his labors with success.

ACCLIMATISATION OF HONEY BEES.—Dr. A. Gertsacker, in concluding a very extensive memoir on the distribution of the honey bee, observes that the most valuable form for Europe would be the Egyptian, partly on account of their beauty, and partly because of their unwillingness to use their stings, which appears to be common to all African bees, and is also one of the recommendations of the Italian bee. The Syrian bee agrees so closely with the Egyptian that it may prove equally valuable; and next to these in value are the bees of the coasts of Asia Minor.

GOOD WHEAT.—J. J. Mechi, of England, writes to the *Mark Lane Express* that he has threshed three fields of wheat: the first two yielded 58 bushels per acre, and the third field 52 bushels per acre. Part of it was red wheat, and part white wheat. The red wheat weighed 66 pounds, and the white wheat 64 pounds per bushel.

A FRENCH PRINCE ON ENGLISH AGRICULTURE.

THE Duc d'Aumale presided at a recent agricultural meeting in England, and in his opening speech remarked :

"No doubt there are some exceptions; but I think I am justified in saying that the two great aims of English agriculturists are the production of meat and bread. These are the two great objects you have had in this direction, and you have pursued them with the tenacity which is one of the characteristics of your race. In this you have been well served by circumstances, and you have reached a degree of advancement which may be, and certainly will be, carried further, but which is not generally surpassed out of these islands. It is for this reason that your agriculture is the subject of study and attention to many foreign economists and practical men. A friend of mine, M. de Lavergne, has given a very good description of your agriculture in a work entitled *L'Agriculture Anglaise*; and an account of your agricultural experiments and meetings is periodically published in French. Gentlemen, I will try to point out some of the features which seem to strike more particularly foreign visitors to this country. The first is the nature of your farm-buildings, which are strictly limited to what is necessary, and are much less extensive than those that would be required abroad for the same extent of land in the same state of cultivation. I believe this practice is a wise one to pursue, for it saves a great amount of capital, which can thus be more profitably invested. Another fact which rather surprises the foreign economist in this country is that the land should have been brought to the high degree of cultivation that it has been when in many parts of the country it is held under tenure at will, and without any very distinct agreement between landlord and tenant. * * * * *

"I have named the steam-plow, and this brings me to another point—I mean the application to agriculture of industrial and scientific means. I read the other day an excellent speech made by Sir William Armstrong, at Newcastle, in which it was stated that England produced 84,000,000 tons of coal last year, which represented the labor of 100,000,000 horses, and horses too which did not require to be fed. I hope that every year agriculture will claim as its own requisite a larger proportion of that immense self-feeding productive power. It is by taking a larger share of that unmeasurable force that agriculture will be able to increase its products and fulfill those increasing demands upon it which are the result of the industrial activity of the day, and of the progress of universal welfare, that it will be able to keep pace with industry on the track of progress, for the benefit of mankind. The use of steam-

power and of artificial manure answers a double purpose. Where hands are deficient they supply the deficiency. Where hands can be easily obtained, and where there is no lack of capital, I think it is admitted that the use of steam increases rather than decreases the demand for manual labor. Then with the help of man's labor and capital it gives the means of drawing out of the laud an increased produce, for which in the present state of trade, industry, and commerce outlets will always be easily found. When I consider what progress has been accomplished in the last fifty years, and since the adoption of a proper course of cultivation, I am rather inclined to believe that if a large additional productive power be made use of, the result will be a more constant employment for labor, more profit for the farmer, and even in the long run, which we won't forget, higher rents for the landlord, and more prosperity for the rest of the community at large. As regards institutions similar to this society, which by a peaceful combination stimulate the prosperity of all classes, and afford an occasion for the exchange of opinion, I am glad to say that they now exist in many places abroad, and that they have been attended with success and the happiest results."

AGRICULTURAL PAPERS.

THE *Country Gentleman* asks its readers to institute a comparison between the intelligence and enterprise of those farmers who read an agricultural paper, and those who do not. In a locality in which such a journal enjoys a liberal circulation, the results accomplished in time are very great. The merits of improved stock perhaps are first canvassed, and then new breeds are brought in; more attention is paid to fruits and flowers; new implements come into use; better buildings spring up; and, with increased attention to manures, there arises a better system of farm management throughout. Now, in none of these respects, nor in any other, can a man single handed, or two or three persons in a wide neighborhood, work one-half as effectively in the cause of improvement as they can when those with whom they are constantly brought into contact are all more or less deeply interested in the same objects—where they read the same periodical—understand the end sought and are willing to do their share in bringing it about. How many of the agricultural societies now in operation owe their existence wholly to the attention attracted to the subject through an agricultural paper; and there is no way in which the success of such a society can be more surely promoted—we say this, not from our own observation only, but on the testimony of many experienced society officers—than by arousing the interest of as large a part of the members as possible in agricultural reading.

SHOEING HORSES.

W. JONES, a veterinary surgeon of London, gives the following simple rules for shoeing horses:

"1st. After having taken off the old shoe, shorten the toe, and remove all the dead and loose parts of the hoof. Do not cut the sole or pare the frog, except when the foot has received an injury from a nail or otherwise, when it must be cut out.

"2d. Let the shoe be of equal thickness, or rather thinner at the heel. The ground and foot surface should be perfectly level. The shoe should be light on the heel. Too many nails are objectionable, and these should be kept as far as possible from the heels.

"3d. For the hind feet there is no objection to calkins, though they are of doubtful benefit. Horses travel better without them. The hind shoes are made thicker at the toes than at the quarters, the nails also can be put closer to the heels without causing inconvenience.

"4th. Side clips should be avoided, they destroy the hoof; the same is the case when the nails are too close together. The feet should never be rasped, as it destroys the enamel of the hoofs, renders them brittle, and causes sandcrack, and consequently lameness.

"5th. Expansion is a fatal error which has led to many abuses in shoeing, such as pairing off the sole and frog, rasping off the hoof, etc. The elasticity of the foot, which is, however, very limited, exists only in the upper part of the hoof, principally round the coronet. On the lower part and the toe it is *nil*."

A LADY FARMER.

THE *New York World* says: "We have frequently met with notices in our foreign exchanges of Lady PIGOT's herd of Shorthorns, and of her skill and enterprise in raising that class of stock. Not long since she held a public sale at Branches Park, her country seat, at which the most prominent breeders in the kingdom were assembled, and on which occasion the distinguished lady made a neat and spirited speech. To our surprise, it came out at this time that Lady PIGOT has a husband—a fact of which, from previous notices, we had not the slightest suspicion. But when her health was proposed, at the lunch preceeding the sale, her husband, SIR ROBERT PIGOT, first responded, and then Lady PIGOT herself made the following feminine and spirited little speech:

"In the presence of the distinguished breeders of Skyrocket and Royal Butterfly, the representatives of Warlaby and Killerby, and my excellent Shorthorn tutor, Mr. TORR, I feel almost ashamed to hear the sound of my own voice. However, I must try and resist it to thank you for your great kindness in coming here to-day, and I hope you will give me

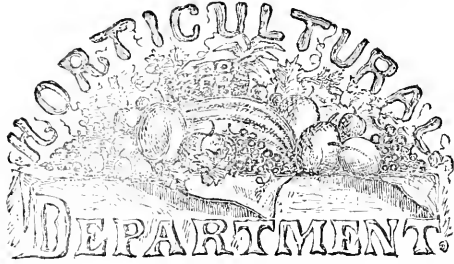
an excellent average. Now, remember I have won 217 prizes—no, I am wrong, 238 prizes; and I intend to come out again with a new herd and beat the best of you, meet where we may. [Great cheering and laughter.] Permit me once more to thank you from my heart for your kindness, and to propose the health of my good old friend, Mr. Wetherell [who officiated as auctioneer,] and the glorious interests of the '*Red, White and Blue*.'"

SHEARING SHEEP.

MR. DENT, the steward—or, as we say, the superintendent—of the sheep and pig section at the last fair of the Royal Agricultural Society, alludes, in his report, to the dishonest practice of shearing sheep in such a manner as to hide the defects and improve the symmetry. He says:

"The more I saw of the show, the more I felt that the society should try to grapple with the shearing question. This year was the first in which I was admitted to the mysteries of the toilette of the sheep, and certainly no young lady going to a drawing-room could have more pains bestowed on her than had some of the rams. The clipping and trimming during Friday and Saturday was incessant, and resulted in some charming models of symmetry. How far the carcass would correspond with its outer garment, better judges than myself can decide; but while fat overloads and injures our Shorthorns and other horned stock, on the one hand, on the other, the sheep has not only fat, but wool of an indefinite age to disguise his deficiencies and lighten his graces. I should think that many of the sheep had never been truly and fairly shorn; and this was more especially the case, as it seemed to me, in the Oxfordshire Down classes; and I could not help regretting that the close-shorn, well-framed sheep of Mr. Charles Howard were not thought good enough for a prize. This delusive shearing belongs more or less to every class—many of the Cotswold and Shropshires being glaringly conspicuous. The Shropshire and Oxfordshire Downs, though thoroughly useful sheep, have not got that degree of uniformity which makes judging easy; and until there is more fixity of type, complaints are sure to arise as to judging. The judges on the present occasion seem to have gone mainly for size, and, I was assured by some Shropshire breeders, had mistaken the type."

TOP-DRESSING MEADOWS.—A farmer in this neighborhood says he top-dressed a three-acre meadow, a year ago last fall, by way of experiment. He allowed the cattle to remain on it till the 28th of May, when they were taken out; and in five weeks from that time, he cut two tons of good hay per acre. He thinks there is no way of using manure more profitably than as a top-dressing for grass.



WHAT SHALL WE DO WITH IT?

WE have an old apple orchard on a farm which recently came into our possession. The trees are thrifty, but being planted only twenty feet apart, the tops interlace each other and form a mass of branches twenty to twenty-five feet from the ground. It seems impossible for such trees to bear fruit, and if they did, it would be a difficult as well as a risky business to gather it. We do not wish to cut down the orchard, and the question is, "What shall we do with it?"

"Cut out every other tree," says one.

That might do if we only knew which to remove and which to leave; but not being acquainted with the orchard, it is not improbable that we should leave the worst kinds and cut down the best. We want to let them bear in order to determine this point.

"Graft them over," says a friend who was very successful in re-grafting an old orchard four years ago, and who is already partially enjoying the result of his labors.

Will some of the experienced readers of the *Genesee Farmer* give us their views on the subject?

In the meantime, we intend to thin out the branches pretty severely—sawing off all that interlace each other, letting in the daylight, and getting the trees into something like a presentable appearance. We suppose it is better to do this now than in the spring. The old theory is that trees take up sap during the winter. Now, if we defer pruning till March, the branches that are cut off will be full of sap, and consequently we weaken the tree to that degree. On the other hand, if the branches are removed at this time, the sap that would have flowed into them will go into the branches that remain. These branches, therefore, will get a larger supply and will grow more vigorously next spring. In other words, if your trees are too vigorous—if they produce too much wood—prune in the spring; but if you want to encourage their growth, prune in the fall or early winter.

The same theory is applicable to pear trees; but there is this objection to early pruning: In cold winters, the bud that you cut back to is liable to be

killed by the frost. For this reason, many of our most experienced pear-growers do not prune until all danger of very severe frost is over—say the last of February or March.

PHILADELPHIA RASPBERRY.—The Hon. Wm. Parry, of Cinnaminson, N. J., sends us a description of the Philadelphia raspberry. He says "its character is now well established as being the largest and best hardy raspberry in the world." Although but recently introduced, it is some twenty-five years since the original plant was found growing wild in the woods, in Philadelphia county. It is vigorous, hardy and wonderfully productive. Last season, "a plantation of two years standing yielded over two hundred bushels per acre of fruit, which sold for twenty cents per quart in market."

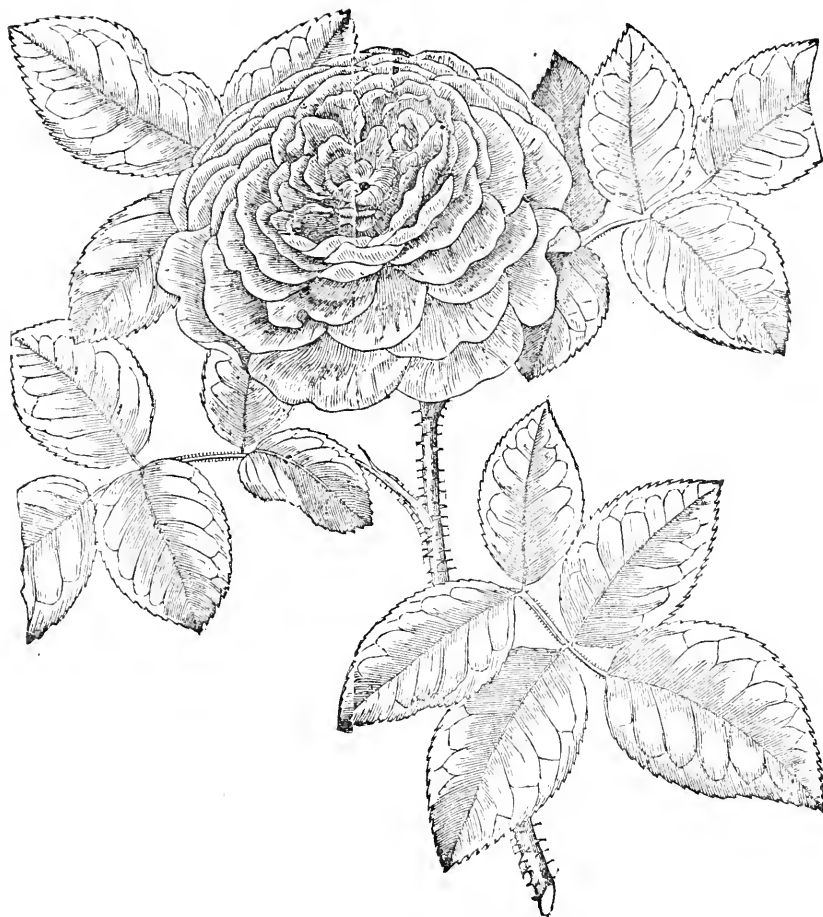
This is \$1,280 per acre?

GAS-TAR FOR POSTS.—This application is far better than the old mode of charring, and is much more easily applied. Charring only affects the outside, admitting moisture into the interior and rotting it. The tar, if applied hot to well seasoned posts, entirely excludes moisture. S. P. Wormley, of Michigan, states, in the *Country Gentleman*, that seven years ago he built a mile of board fence, placing the posts, for one minute, in a large kettle of hot gas-tar, so as to coat them six inches above the surface. They now appear to be as sound as when set. The posts of another fence, set about the same time, without tarring, are about half decayed.

INFUSORIA AND GERMINATION.—M. Lemain, in a paper read before the Academy of Science, endeavored to show that infusoria performed a very important part in germination. He quoted some experiments showing the presence of animalcules while the process was going on, and also showing that by applying an acid which destroyed this animal life that germination was prevented.

AMARANTHUS Melancholicus Rubra and *Coleus Verschaffelti* are receiving the highest commendations as bedding-out plants from English gardeners. In the *London Journal of Horticulture* Mr. J. Robson devotes an editorial to them, and several correspondents speak of them as succeeding well in different parts of the country.

THE LADY APPLE.—This beautiful little apple frequently commands high prices in our large cities, where it is used at evening parties on account of its rich delicate color. We are informed that Mr. Stratton, of Webster, in this county, has recently sold the product of two trees for \$75. They produced fifteen barrels.



THE GIANT OF BATTLES ROSE.

THE engraving which we here give, is one of a rose so familiar to the horticultural public that perhaps an apology may be deemed necessary for presenting it at this time. The only one which we shall offer is, that it is so general a favorite that it will be greeted as an old friend; and that to those by whom it is not known, we believe it will prove an interesting acquaintance.

Although it has been long tried, and has many worthy rivals, its popularity does not yet seem to wane. It is of a dwarf habit of growth, yet we have seen it, in good cultivation, send up shoots from two to three feet in length; but this is unusual—and its very slow growth must, on the whole, be considered a fault. When, however, we take into consideration the brilliant crimson color, the beauty of form, the free blooming habit and the rich dark leaves of this variety, we have grouped together an assemblage of valuable qualities which must continue to make this rose command the attention of every rose cultivator. Until a few years since, the

Geants des Batailles stood alone among the Hybrid Perpetuals—distinguished for its high crimson color; and when it was announced that Lord Raglan surpassed it in this respect, this variety attracted general attention; and although it has proved equal to the public expectations in point of color, yet it is so shy a bloomer that it will never become so great a favorite as its predecessor.

As an amateur rose-grower, we would not be without these two sorts, and should consider their culture as a test of skill.

At the present time we are able to mention several roses of a similar style, which, in some of their habits, are superior. The first among these is Louis Chaix, a seedling of Geant des Batailles, resembling it in its leaves, but a better grower and more compact in flower. It is a profuse bloomer and a very desirable sort. General Jacqueminot is a variety which is deservedly meeting with popular esteem, and although it has been before recommended in our columns, we would again say that it is one of the

most desirable sorts now in cultivation. It is of vigorous growth and a profuse bloomer; color, a brilliant crimson. It is not quite full, but its form, notwithstanding, is very beautiful, and to add to its charms it has the delicate fragrance of a Tea rose. Glory of France is another dark crimson, or bright flame-colored rose of fine form, large and full, and very admirable. Emperor Napoleon III is a large full rose of vigorous habit of growth, shining reddish crimson, with darker velvety shades, and is very beautiful and desirable.

WESTERN NEW YORK APPLES.

THE apples of this section are becoming each year more and more celebrated throughout the United States and Canada; and Dr. Lindley, of the *London Gardeners' Chronicle*, pronounces our Northern Spy "the most delicious of United States apples, as well as one of the very finest of table apples." He prefers it "to the best Newtown Pippin." Mr. Pell has made a fortune by raising Newtown Pippins on his farm on the Hudson River, and shipping them to London, where they command very high prices. But our Western New York apples are unquestionably superior to all others, and as they become better known abroad, will be in great demand.

During the past season, immense quantities of apples have been shipped from this section to Philadelphia, New York, Boston and other large cities. The *Rural Advertiser*, published at Philadelphia, calls the attention of its readers to this fact and says: "No one who goes through the markets in Philadelphia, can fail to be struck with the general superiority of eastern apples over our own. A barrel of very nice and perfect apples does not suggest any inquiry where they came from, as it is always known such are not grown in Pennsylvania, but from New York, or some of the Eastern States. Apples of Pennsylvania growth, as generally brought to the market, are small in size, imperfect in shape, gnarled or wormy, and inferior in flavor. Indeed, we have been hardly able to recognise some varieties as being the same apple, so different is the appearance when grown here and in New England. If our horticultural exhibitions did not annually show beautiful specimens of apples, thus proving that only improper treatment of our trees is the cause of all this, we should conclude that soil and climate has something to do with it. We think, however, the real cause is that the cultivation of fruit not being made a part of the *business* of the farm, is neglected, and that, therefore, it does not pay. Its not paying is a consequence of the neglect and not the cause of it."

This view of the case is flattering to the farmers of this section, but we think that the superiority of Western New York apples is due, in a good degree,

to our soil and climate. The influence of the lake in modifying the climate, gives us a great advantage—such, at least, is the general opinion of experienced fruit-growers in this section.

INDIANA POMOLOGICAL SOCIETY.

THE third annual meeting of this society will be held in Indianapolis January 5th, and continue four days. On the first day I. D. G. Nelson, President of the society, will deliver an address, to be followed by essays on apples, and on the cultivation and training of orchards. An address in the evening will be delivered by Dr. J. A. Warder, of Cincinnati.

On the second day, W. H. Loomis and Dr. J. C. Helm will read essays on "some subject connected with pears," and Dr. R. T. Brown on grapes, with an address from Mr. Knox, of Pittsburg, on the same subject. In the evening there will be a general talk on wines, wine-grapes, wine-making, &c.

On the third day essays will be read on subjects connected with peaches and cherries.

On the fourth day essays on small fruits, &c.

We like this idea of selecting some of the best members of the society to prepare and read essays on given subjects, rather than to spend the whole time in discussing the merits of this or that particular variety of fruit.

MR. BERKELEY, of the *London Gardener's Chronicle*, says that many doubtful cases of the vegetation of seeds which have been kept for many years from the influence of the air, are reported; but that one has lately come under his notice which has at least the merit of authenticity. A layer of peat which had formed a part of an old pond filled in more than thirty years ago, was exposed to the air by some late excavations, and became immediately covered with myriads of little seedlings which proved to be of three different orders of plants. It was found by close examination that they could not have come from the gravel above. Mr. Berkeley held that if these seeds had retained their vitality for so long a time there seemed to be no reason why they might not have done so to an indefinite period.

DRYING EVERLASTING FLOWERS.—A correspondent of the *London Cottage Gardener* says that this is apparently a very easy thing, but is in fact not so. That Xeranthemum and Acolitium if hung up by the flower stalks with the head downwards, the flower, when dry, is very apt to break off, the stalk being very brittle; but if cut carefully just before the flowers expand, and laid flat on a shelf in a light place the stem and the flower will expand and dry properly. By inserting a few inches of wheat straw in the flower stems, bouquets can be arranged much more effectively than with the natural stems alone.

HORTICULTURAL NOTES.

THE ROOTS OF TREES.

WISHING to plant some evergreens on a prominent part of my garden for the purpose of ornament, especially in winter, I set out a figure of arbor vite. It was about fifteen feet in diameter. Towards the back of the enclosure a cross was erected, and a Concord grape planted at its base. The soil was new, and for the purpose of making the hedge and the vine grow, it was well pulverised and planted with potatoes. The first year they yielded well, but on the following the vines grew only half their usual size, and prematurely withered up. I could not account for it. On digging the potatoes, the whole plot was found filled with very small fibres from the arbor vite, even ascending to the tops of the hills. This spring the roots pervaded the whole soil, as the cuplary vines do the animal muscle. This explained the difficulty. The potatoes were not only starved, but strangled. The grape vine did not grow vigorously, and it will not if these delicate constrictors are not seen to.

On a mound about a foot high and eight feet in diameter, where a young Norway spruce was set, I have been in the habit, for the past few years, of planting tulips on the edge. In taking them up last season I was surprised to find them imbedded in a mass of fibrous roots which filled the soil within half an inch of the surface.

Fruit trees do not generally throw out such a spray of roots as the two above named, yet probably more than we readily observe in digging around them. No doubt, if we could get a daguerreotype view of their roots, we should be greatly surprised at their number, fineness, and extent. They will not run deep unless the soil is rich and porous; and even then they seem to prefer a position within a few inches of the surface. As a general truth, they go wherever they find nutriment, whether up, down, or horizontally. If a heap of rich loam were piled up under an apple tree, in a few years it would be filled with roots.

The delicate roots of trees, with their nursing spongioles, and their nearness to the surface, would seem to suggest the avoidance of the plow and the importance of surface manuring, with simple scarification. Where the soil is underdrained, the plow is still less needed, as a greater depth is vitalised—the very object of plowing.

THE NORTHERN SPY APPLE.

This apple, of late years, in Massachusetts, has not had much of a reputation for home culture. It has been charged with shyness and lateness of bearing, and dry rot. Last season, however, (a great apple year,) seemed to change many people's opinions. It was announced as a success, and many favorable

facts were related. But I know one better than any of them, I think, which has not been related. Mr. Stone, of Winchester, about seven years ago, grafted a large tree with this variety, putting on an entire new top. Last year it produced ten barrels of very fair fruit, and well colored.

NEW GRAPES.

Their name is Legion. From the number originated of late, one would suppose that the great point would soon be reached, (if not already,) of procuring a variety which is excellent, hardy, and sure to ripen in this latitude. But from the great number discarded and forgotten, it looks rather discouraging. Grapes are not so much at fault in our own climate. The Concord is somewhat in danger of frost, and so of the Diana and Delaware—now the leading grapes. These are much surer than the Isabella, and we wonder how horticulturists put up with the latter so long. But uncertain as it is and has been, we doubt whether either of the above will ever attain to so great a popularity. Rodgers' Hybrids are now passing the ordeal of criticism, and possibly the decision will be favorable to many of them. Say what we will, it is hard to get a good, early grape. The best are rather tardy, and the severe frosts threaten them.

But the subject of wine making is now much spoken of, and it is said that some of the poorer kinds are excellent for this purpose. Granted. Let me, however, throw in an emphatic *but!* Is it desirable that we should become a great wine-producing and wine-drinking nation? The subject is delicate. Yet, as Snagsby says, in the Bleak House, "not to put too fine a point upon it," before farmers engage extensively in the manufacture of wine, should not its influence and bearings be more fully discussed?

NAMES OF FRUIT.

Complaint has been justly made against the long names of some of the French pears, as being difficult to understand and pronounce. But however simple the names of fruit, blunders will be made, and sometimes they are amusing. We have frequently seen trees labeled "Bondy Jerry." I once inquired at a fruiter the name of an apple. "Well, sir," promptly responded the young Irishman, "that is the 'Gravelstone'"—meaning the Gravenstein. I know of an old lady who calls the Red Astrachan the "Red African." At one time I thought I recognized an apple, and upon inquiry the man replied, "Ah, that's very fine; it is what they call the *Synae!*" (Swaar.) D. W. LOTHROP.

West Medford, Mass.

A GOOD SUMMER APPLE.—A. G. Hanford writes to the *Ohio Farmer* that there is a great lack of summer apples in our city markets, and urges fruit growers to plant the Keswick Codlien. It is a superb kitchen apple, cooking tender even when half grown.

FRUIT CULTURE IN THE WEST.

EDS. GENESSEE FARMER: Fruit culture in the West is beginning to receive that attention which its importance demands. It has been greatly retarded by unfavorable seasons, causing the loss of many trees, by financial embarrassments that for several years greatly oppressed the people, and by a want of intelligence derived from the practical experience on the subject.

This last impediment is not confined to western fruit culture, but exists to a deplorable extent all over the country.

The trees in the orchards that have survived the destructive winter of 1856 unharmed, embracing the apple, pear and peach, are now yielding abundantly; also, the cherry and the grape, with all the smaller fruits, are succeeding well, and promise to supply our markets and tables abundantly.

As the apple is first in importance in the fruit family, I may be indulged in talking of its culture and value first, and of other fruits afterward. In some portions of the Great West, in Michigan, for instance, but little more is necessary than to plant an apple tree to secure early and abundant crops.

Yet even here careful and skillful cultivation is necessary to produce the greatest abundance of the finest fruit. It has been found by experience that the "barrens, or timber lands," when brought under cultivation, are better adapted than open prairie to fruit raising with the ordinary method of cultivation. But as the prairie country is so extensive, so fertile and capable of supporting a greater population than any other country of equal extent, it becomes a consideration of the highest importance that all the experience and skill that is extant should be condensed and placed before the people who are to have the responsibility of the cultivation of fruit on these fertile plains, and while I may contribute what experience and observation have taught me I shall doubtless leave a wider field for others of more experience to occupy.

He who would plant an orchard on his prairie farm should select the most elevated, convenient place, and subsoil it as deep as possible with a plow that will bring to the surface the greatest amount of the subsoil, thus forming a compost with the surface soil.

To prepare the ground more completely, let a deep cutting subsoil plow follow in each furrow to loosen the earth as deeply as possible, which will not only prepare it to nourish the tree, but also to drain the land. This last consideration is of great importance.

No tree can be healthy and productive with "wet feet." Whatever the expense may be the land must be drained so that water shall not stand within two

or three feet of the surface. If there can not be a convenient elevation for this purpose, a ridge may be thrown up by plowing two or three feet, on which to plant the rows of trees.

The most perfect method of preparing orchard land, on either prairie or timber, in any country, is to dig a trench or ditch two or three feet deep and wide as the entire length of the rows to be planted, and mix the surface with the subsoil on the rich prairie in equal proportions, and where the land lacks in richness, sods or other fertilizing agents should be used.

To these trenches make an outlet by which the water can drain off. Drain tile, cobble stone, or brush may be used in the bottom to make a more perfect drain.

One of the most healthy and productive orchards in the valley of the Hudson River was planted on land thus prepared, which before was cold and unproductive.

In all cases of fruit tree planting the value of the products to be derived in long-coming time, should be considered. Apple and pear trees in favorable locations frequently live from one to two hundred years, and the product of a single tree amounts to hundreds or thousands of dollars.

At another time I will give a list of facts on this point that have come to my knowledge.

D. C. SCOFIELD.

Elgin, Illinois.

KEEPING BOUQUETS UNDER GLASS.

CUT flowers may be kept under glass for a long time, but when the bouquet is a large one the moisture which collects upon the glass so obscures their beauty that very much of the pleasure in prolonging their freshness is lost. In Europe, where delicate plants are exhibited, they are placed under bell glasses to protect their foliage, and this difficulty of the dimness of the glass has caused a good deal of annoyance. A correspondent of the *London Gardeners' Chronicle* gives the following account of the manner in which this difficulty was surmounted by Madam Legrelle D'Hanis, of Antwerp, in exhibiting plants at a flower show in Brussels:

"Allow me to draw attention to the method at present adopted for displaying at horticultural exhibitions certain delicate objects, such as small ferns and Anætochiles. From their delicacy they are shown under glasses, and the evaporation is always such as to obscure them so carefully from the eye of the visitor, that beautiful as are their forms and markings, they are either passed over, or the glasses have to be taken off, which is of course an infringement of the rule not to touch, and often results in damage to the plant in the process of recovering. Now, at the late flower show at Brussels I noticed a glass case, exhibited by a lady, containing a large number of Anætochiles looking as bright as possible, and on examining the treatment which had pro-

duced this result, I found that over the earth she had laid a thick coat of woolen thread, which absorbing the rising moisture left the glass clear during the hours of exhibition. The exhibitor had chosen wool stained of colors best suited to show off her plants."

THE ORNAMENTATION OF CEMETERIES.

WE quote from the *Gardeners' Chronicle* a short article on this subject, interesting to many at this sad time, when the fairest and brightest of our land are sleeping so quietly, leaving only their graves to our love:

"A correspondent has written to ask our opinion upon the following question, which appears to be daily becoming more worthy of consideration: 'Should cemeteries be decorated with the gayest flowers that can be obtained; or, would it not look far more in character with the place to substitute trees, shrubs, and plants of a sombre tint?'

"Now we look upon this question as involving considerations of pure taste and feeling, upon which any person possessing those qualities is capable of giving an opinion; we therefore should be very glad to know the views of any of our correspondents who have considered the matter, while, without assuming the airs of an '*arbiter elegantiarum*,' we venture to express ourselves very decidedly in favor of the shrubs of sombre hue, and against the gaudy flowers. Or perhaps we should like best of all to keep the general features of a cemetery to some extent sombre and funereal, while we should wish the tenderest emotions to be raised by the sight of individual graves thoughtfully cared for, rendered pleasing to the eye, soothing to the mind, with a few simple wild flowers, and fragrant with primroses, violets, or sweetbriar, the sacred labor of some female hand, the tribute of some loving heart. Such flowers of nature speak for themselves; they tell their own tale. But, perhaps, to confine ourselves to such as these would be imposing too narrow a limitation. Surely there can be no objection to the presence of any flowers that do not require the continual labor of the gardener and his men, provided that they are not introduced into the walks, or ranged in elaborate parterres, which would give a notion of paid for work, and not be suggestive, as they manifestly should be, of an offering of affection, a labor of love. Among the flowers that would seem to be most appropriate, one thinks of the modest snowdrop, peeping above ground ere the winter is gone—the harbinger of spring, or the crocus expanding its beautiful flowers on the first cheering sunshiny day; Anemones, bright and hopeful; blue bells, sweet and elegant, hanging down their heads; the true old fuchsia coccinea, with pendent spray, but not its vulgar 'improvements.' All these are admissible, and our

fair readers will easily think of a multitude of others quite as appropriate.

"It appears to us that the endeavor to harmonize outward objects with our inward feelings is a true mark of delicacy and refinement; and, on the contrary, the abrupt introduction of matters perfectly incongruous with our frame of mind, ever must be harsh and jarring to the sensitive. To 'rejoice with them that do rejoice, and weep with them that weep,' is at once a Christian maxim, and the dictate of a warm and sympathising nature. To make cemeteries into a gay promenade would be as painful to the feelings, and almost as much out of place as dancing at a funeral."

A CORRESPONDENT of the *London Gardeners' Chronicle* gives his horticultural experience in Egypt. He says that it is one of the finest countries in the world for fruits, that his grapes are magnificent, some of his vines measuring two to two and one-half feet in circumference, and that many of the bunches measure from twelve to twenty inches long and as much across the shoulders. He astonished the natives by thinning. His men thought it a sin to waste the berries. Apples, pears, quinces, apricots, peaches, strawberries, custard apples, musas, figs, pomegranates and guavas, fruit well and make enormous growths. As to flowers it is one vast hot house. Geraniums are splendid. The scarlets will grow to almost any size you like. Six feet high and as much through is a very common size. Cuttings of all kinds strike freely. Some vine cuttings put in an open border to strike during the winter, had in the May following one and two bunches in full flower.

PRONUNCIATION OF GLADIOLUS.—Mr. Beaton says that "It may be as well to put you on your guard against a common provincial way some people have of pronouncing the word *Gladiolus*, by putting the accent or stress on the letter *o*; whereas, the true way of uttering the same is as if written *Glad-eye-lus*, putting the accent on the *i*." This warning was given in one of the earliest volumes of the *London Cottage Gardener*, and is now brought up again in evidence against one or two who adhere to the condemned pronunciation.

THERE was quite an animated discussion in the New York Farmers' Club on a letter from Wayne, Indiana, as to the reliability of Dr. Grant's grape vines. The people at the West have been cheated so often that they are afraid of every one. The general opinion seemed to be that his mode of culture was good, but that very often the vines that he sold did not succeed on account of the poor culture they afterward received.

Ladies' Department.

ORIGINAL DOMESTIC RECEIPTS.

Contributed to the Genesee Farmer.

SHREWSBURY BRAWN, OR HEAD CHEESE.—The town of Shrewsbury is famous for its brawn. "Brawn makers to her Majesty" reside there, and as they drive a thriving business it is presumed that her Majesty has a weakness for this particular dish. This receipt comes to us from a Shropshire lady: Put the head, including the ears and tongue, with the feet and tail of a pig into a weak brine with a little saltpetre in it. Let it remain two weeks. Take it out and boil it tender so that the flesh separates easily from the bones. Chop the meat quite fine and season with pepper. Put it in a mold and fill it so that the meat will rise two or three inches above the top. Cover with a plate and press with any heavy weight. It will be pressed sufficiently in twenty-four hours, and ready for the table. It should be cut horizontally, in very thin slices, and eaten with mustard and vinegar.

CONDENSED MILK.—A correspondent of the *German-town Telegraph* says: "To one quart of new milk, take one pound of the best crushed sugar; let the milk boil, then stir in the sugar until all is dissolved; continue to stir until it has commenced again to boil, which must be on a gentle heat to keep from burning. When it becomes the consistency of molasses it is done for use. Put in cans or close jars and cork them tightly. This is of much value where fresh milk can not be had, either in preparing food for the sick, or to use in tea and coffee. In hospitals this is a valuable article."

SUBSTITUTE FOR COFFEE.—A correspondent sends us the following: "Take clean, sound peas, soak them for some eighteen hours in hot or warm water, pour off the water every five or six hours, or at least three times, then rinse and dry the peas. Brown them like coffee, mix and grind together, first by equal parts; after a few days two-thirds peas may be used and still make a good cup of coffee."

BREAD CAKE.—Two eggs, two cups of dough, two cups of sugar, three-quarters of a cup of butter, one-half of a cup of flour. Stir these together, adding cinnamon and cloves, and let it rise until you put your bread into the tins. Just before baking add another one-half tea cup full of flour, and a piece of soda about as large as a bean. This makes two loaves.

POTTED BEEF.—Boil a leg or neck piece of beef, until you can not take it out with a fork, skim out the meat, put in *too much* salt and pepper and chop it fine; then pour into it a tea cup full of the liquor that is left, and pack it in a deep dish. When cold it can be served either in the dish in which it is packed, or cut in thin slices.

FROSTING WITHOUT EGGS.—One sheet of isinglass dissolved in a little water. Stir in the sugar and flavor with lemon or chocolate.

ROAST LEG OF MUTTON WITH OYSTERS.—Stuff a leg of mutton with suet, salt, pepper, the yolk of an egg and a little bread. When about half done cut off some of the fatty parts in little bits and put them into a pint of oyster liquor, to which add half a pint of hot water. Stir until the gravy is reduced to half the quantity. Put in a little butter rolled in flour, and pour the whole over the meat.

HOTCH POTCH.—Take any old meat, chop or slice fine, season with salt and pepper, or sage, if liked. Add to this half as much stale bread or potatoes that have been boiled. Stir them well together, and inclose it in a crust as for chicken pie, and put up the same way. Bake one-half hour.

POOR MAN'S PLUM PUDDING.—One tea cup of chopped suet, one tea cup of sweet milk, one tea cup of molasses, two tea cups of flour, one teaspoonful of soda dissolved in a little hot water. Spice to your taste. Put it in a pudding dish and steam it two hours.

GINGER CRACKERS.—MRS. HINSDALE.—One pound of butter, one pound of sugar, one pint of molasses, and one teaspoonful of saleratus dissolved in a tea cup of milk, four tablespoonfuls of ginger, and flour enough to roll them out.

CHICKEN SALAD.—Cut the white meat of two chickens into small pieces, chop ordinarily fine two heads of celery, pour over the mixture a dressing.

DRESSING FOR SALAD.—Four hard boiled eggs rubbed smooth; add to each yolk one-half a teaspoonful of mustard, same of salt, and one tablespoonful of oil; just before using put in four wine glasses of vinegar. Mix thoroughly.

QUEEN ESTHER'S BREAD.—Take a loaf of stale bread, cut in slices, dip into sweet milk with a little salt; have ready two eggs well beaten. Dip into the egg and fry brown. Eat with sauce.

THE QUEEN ON CRINOLINE.

PUNCH has the following letter. "Her Majesty has addressed the following remonstrance to the ladies of England:

"WINDSOR CASTLE, August 1, 1863.

"LADIES: The Queen has commanded me to express the pain with which Her Majesty reads the accounts of daily accidents arising from the wearing of the indelicate, expensive, dangerous and hideous article called crinoline. Her Majesty can not refrain from making known to you her extreme displeasure that educated women should by example encourage the wearing of a dress which can be pleasing only to demoralized taste. For the miserable idiots who abjectly copy the habits of those conventionally termed their betters, it is impossible to entertain anything but pity. But to the ladies of England this appeal to abandon the present degrading and disgusting fashion is made in the belief that they will show themselves the rational and decorous persons they are supposed to be.

"I have the honor to be, ladies,

"Your most obedient and humble servant,

"C. B. PHIPPS."

Punch, in this case, seems to have been stronger than the Empress, as the "sly Quakers" are all the rage in spite of the fact that the Imperial Lady continues to patronize the "gore trail."

OBTAINING HELP IN THE COUNTRY.

SCENE.—A parlor, five miles from Newburyport. Bridget seated in the cosy chair.

(Enter the lady of the house.)

Bridget.—(Briskly, without rising.)—"Good morning, ma'am."

Lady.—(Standing.)—"Good morning. Will you tell me your name and errand?"

B.—"Sure, Bridget O'Calligan's my name, ma'am; the same that's walked all the way from the city to see ye."

L.—(Kindly.)—"Tell me how I can serve you, Bridget."

B.—"Indade, ma'am, if you please, and it's me that's come to say I'm willing to sarve yoursilf."

L.—"O, yes, I understand; my husband was inquiring in the city for a servant; and you would like the place?"

B.—"I'm not so sure but I might if ye'd make it for me interest to go so far out. It's Margaret Degan (she that lives with his riverance, Doctor Burleigh) told me you's the distrist for help; so I called to see his lady about ye, and she gave ye such a good character, and ricommended ye so high, that I thought ye'd jist suit me; so I've brought me things," (showing a bundle from under her cloak,) "and if ye can accommodate me in respect to the work and the wages, I'll be after stopping with ye."

L.—(Smiling.)—"How could I accommodate you as to the work?"

B.—"Well, it is n't Bridget O'Calligan would be hard upon so winsome a lady—ye looks youngish, too, and delect like; but I suppose ye'd be after wanting to do the nicest of yer own cooking?"

L.—"I have done so, for the last four years."

B.—(Brightening up.)—"Sure, and I was right. Yer house, (glancing around the parlors,) looks nice. I suppose ye'd be after taking charge to kepe it clean and in order, yersilf—except the kitchen."

L.—"I have been accustomed to do so."

B.—"Yer husband's the minister, they said. I suppose it's only yersilf, ma'am, would be able to suit him to his linen."

L.—"You are right again, Bridget; my husband's linen I never trust to any hands but my own."

B.—(Delighted.)—"Sure, ma'am, I'm thinking Mrs. Dr. Burleigh did n't ricommend ye without rason. Have ye any childer?"

L.—"Yes; two boys, six and eight years old."

B.—"And ye would n't be after axing me to mind them? Ye 'd be expectin' to mind your own boys, of course?"

L.—"Certainly, that is altogether customary."

B.—"Faith, ma'am, I'd like to be livin' with so kind and hilpful a lady. What's been yer wages, ma'am?"

L.—"Nothing. I have been accustomed to work without wages."

B.—(Bewildered.)—"Ma'am?"

L.—"I have done the work of my family unaided for the last four years, and have, therefore, neither paid nor received wages."

B.—(Astonished.)—"Sure, ma'am, are ye after bein' one of that sort? Ye don't look like it; I'd niver a thought it."

L.—"I am precisely that sort, I assure you, Bridget. I choose to have either the comfort of *doing my work myself*, or the comfort of *having it done for me*. You see I should have neither if I employ'd you. Good morning."

B.—"Faith, it 's the truth ye spake, ma'am. Good day to ye."

B.—(Soliloquizing as she goes.)—"Sure, and what should a decent girl be after lavin' the world to live in the country for, if not for large wages and small work. The saints sind her help; but it's not for the like 'o sich the O'Calligans works."—II., in the *Congregationalist*.

This scene actually took place, as described, only a short time since, at a Congregational parsonage in Essex county.

HOW TO POLISH SHIRT BOSOMS.

A CORRESPONDENT of the *American Agriculturist* gives the following directions in reply to the complaint of "Mrs. Pry," who can not make her husband's shirt bosoms and collars look nice, for polishing linen as it is done in the shops. He seems to know a good deal about it for a man:

"The first thing is to wash them clean, then starch them thoroughly with the best of starch. A little pure spermaceti or dissolved gum Arabic in the starch will improve it, but have the starch thick, and work it into the linen thoroughly. When in a proper condition, use the common sad iron to smooth them and get them into proper shape, the same as though they were not to be polished. I would say you can not polish linen on a soft cloth. Take a piece of hard wood (I use birch) say ten by fourteen inches, or size of a shirt bosom, and plane it even and smooth. When you use the polishing iron lay the linen on the board, without any cloth underneath; a liberal supply of elbow grease is indispensable to make the thing look first rate. Now for the polishing iron. We use McCoy's patent. I have seen several kinds, but I like this the best. You can not polish with an iron with a flat face; the one I use is made something like a small shoe, with a round heel on both ends, nicely polished, and care should be had to keep it so, if you wish to have your linen look well. The linen we buy at the stores is polished by men or machinery, which gives it a finer polish than can usually be given by females. But if Mrs. Pry will get a good polishing iron, and follow the directions as given she will not feel ashamed of her husband's bosoms and collars."

FIRE-PROOF DRESSES.—Scarcely a week passes but we read sad accounts of young ladies being burned to death, owing to their light muslin garments catching fire. It ought to be generally known that all light dresses may be made fire-proof at a mere nominal cost by steeping them, or the linen or cotton used in making them, in a dilute solution of chloride of zinc.—*Godley's Lady's Book*.

How much diluted, and what effect does it have on the color and appearance?

GERANIUM LEAVES.—It is not generally known that the leaves of the geranium are an excellent application for cuts, where the skin is rubbed off, and other wounds of that kind. One or two leaves must be bruised, and applied on linen to the part, and the wound will become cicatrised in a very short time.—*Mrs. Fry*.



CHARLES LAMB says that the old proverb that the "early bird catches the worm" has two sides to it—that it served the worm right for coming out at such unseasonable hours. We regret to say that the cock, whose portrait we give here, met with an equally sad fate on account of his propensities for matutinal chants. Towzer, a lazy city dog, who had been accustomed to being up all night and lying asleep all day, was sent out to the farm on which a splendid rooster—the pride of the village—lived. Every morning at dawn, before the sun was fairly risen, he awoke and spent a short time in the exercise of his vocal powers, and with his cheerful voice called the farmer and his family to their daily labors. To them the sound was welcome, as they were awake by it from as healthful sleep as that of the cock himself. But to Towzer it was quite a different thing, and he vowed vengeance against his tormentor. An incident finally occurred which, owing to the hasty temper of the cock, and his family pride, was easily made into a quarrel. A hare—a stranger in the place—called at the farm and made an innocent remark about his

pleasure in escaping from the city and returning to the innocence and freshness of rural life, which the cock construed into an insult, and insisted upon a duel. Towzer became the hare's second, and the fatal shot was fired which laid his noble enemy in the grave. As the hare was known by all to be absurdly timid, and as he fell down with fright after he had fired his pistol, there is not much doubt but that Towzer directed his aim. We are happy to say that Towzer gained nothing by this wicked deed, for two birds supplied the place made vacant by his villainy whose voices were much louder and not near so musical.

A CHILD'S PRAYER.—Here is a beautiful prayer, by a little one only six years old: "Lord bless the poor children, and give them good homes, so that they won't have to live in cellars any more. And help me not to spend my money for candy, that I may have more to give to them. Amen."

NEGLIGENCE is the rust of the soul that corrodes her best resolutions.

Miscellaneous.

THE KITCHEN CLOCK.

- Listen to the kitchen clock!
To itself it ever talks,
From its place it never walks;
"Tick-tock—tick-tock."
Tell me what it says.
- "I'm a very patient clock!
Never moved by hope or fear,
Though I've stood for many a year;
Tick-tock—tick-tock."
That is what it says.
- "I'm a very truthful clock:
People say, about the place,
Truth is written on my face;
Tick-tick—tick-tock."
That is what it says.
- "I'm a very active clock,
For I go while you're asleep,
Though you never take a peep;
Tick-tock—tick-tock."
That is what it says.
- "I'm a most obliging clock;
If you wish to hear me strike,
You may do it when you like;
Tick-tock—tick-tock."
That is what it says.
- What a talkative old clock!
Let us see what it will do
When the pointer reaches two.
"Ding-ding—tick-tock."
That is what it says.

AMONG the Siamese birds, the crows most attract attention. They exist in extraordinary numbers, and when they seek their night quarters in Bangkok—the temples—they almost darken the air. These birds display an almost incredible impudence. Before daybreak they stalk about the street in dozens, to steal everything that comes in the way of their greedy beaks. They do not hesitate to snatch edibles from the hands of children—and even of elderly persons—force their way into the kitchens, knock off the covers of pots and take out the meat, which, if unable to swallow on the spot, they try to conceal in some corner, on a roof, or up a tree. They fight boldly with dogs and cats for a bone, and, when so engaged, will hardly get out of the way of passers-by. If they are shot at, or stones are thrown at them, they collect in hundreds and make an awful row, which is quite unendurable. However, they combine with the dogs in acting as scavengers—clearing the towns and villages of all rotting substances.

A "SURE CURE."—Dr. E. Booth, of Crestline, Ohio, has purchased, "for the benefit of mankind," and publishes in the *Buffalo Medical and Surgical Journal*, the following "rescat": "Medicine for to distract the Rheumatism, Pains and toothake, Backake and boils, strains for man and horses, & many more sores: Take one quart of good Old Rye Whiskey & add in the bottle One oz. of camphire, 6 pots of Red pepper, six cents worth of cloves, 5 cents worth of cinnamund, 3 cents worth of shaven sope, One table spoonful of salt. Add them all in the bottle together & set the bottle in the sun 9 days before using & where the pain is grease it well Evening and morning. Don't giv up soon. Shak the bottle 2 or 3 times a day. 50 cents for a rescat. It is a sure cure."

LANGUAGE OF INSECTS.—A most singular discovery, the credit of which appertains, we believe, to Mr. Jesse, is that of the antennal language of insects. Bees and other insects are provided, as every body knows, with feelers or antennæ. These are, in fact, most delicate organs of touch—warning of dangers, and serving the animals to hold a sort of conversation with each other, and to communicate their desires and wants. A strong hive of bees will contain thirty-six thousand workers. Each of these, in order to be assured of the presence of their queen, touches her every day with its antennæ. Should the queen die, or be removed, the whole colony disperse themselves, and are seen in the hive no more, perishing every one, and quitting all the store of now useless honey, which they had labored so industriously to collect for the use of themselves and of the larvæ. On the contrary, should the queen be put into a small wire cage placed at the bottom of the hive, so that her subjects can touch and feed her, they are contented, and the business of the hive proceeds as usual. Mr. Jesse has also shown that this antennal power of communication is not confined to bees. Wasps and ants, and probably other insects, exercise it. If a caterpillar is placed near an ants' nest, a curious scene will often arise. A solitary ant will perhaps discover it, and eagerly attempt to draw it away. Not being able to accomplish this, it will go up to another ant, and, by means of the antennal language, bring it to the caterpillar. Still, these two are perhaps unable to perform the task of moving it. They will separate and bring up reinforcements of the community by the same means, till a sufficient number are collected to enable them to drag the caterpillar to their nest.—*Once a Week.*

LADIES' SPELLING A HUNDRED YEARS AGO.—Mr. Murphy used to relate the following story of Sam. Foote, the heroine of which were the Ladies Cheere, Fielding and Hill, the last the wife of the celebrated Dr. Hill. He represented them as playing at "I love my love with a letter." Lady Cheere began and said, "I love my love with an N, because he is a night. Lady Fielding followed with, "I love my love with a G, because he is a justice" (justice); and "I love my love with an F," said Lady Hill, "because he is a fishshun."

A SAVING CLAUSE.—Said an Irishman to a telegraph operator, "Do you ever charge anything for the address in a message?" "No," replied the operator. "And do you charge for signing his name, sir?" said the customer. "No, sir." "Well, then, will ye please send this? I just want my brother to know I am here," handing him the following: "To John McFinn, at New York, (signed) Patrick McFinn." It was sent as a tribute to Pat's shrewdness.

A FRIEND pbeeling phunnily phigurative phurnishes the phollowing: "4ty 4tunate 4esters 4ninitely 4tifying 4horn 4tresses, 4cibly 4bade 4ty 4midable 4eigners 4ming 4aging 4ees."

A WESTERN PAPER says that an Arkansas rebel cavalry colonel mounts men by the following order: "Prepare fer ter git onter yer creeters." Second order—"Git."



THE GENESEE FARMER FOR 1864.

THE GENESEE FARMER, on its thirty-fourth birth-day, presents himself before you, kind reader, in an entire new dress. Thanks to the active influence of our friends who voluntarily act as agents in getting subscribers, the prospects of the paper were never so bright and promising as at the present time. Our receipts for the volume of 1864 are to-day (December 22,) over six times as large as at the same time last year.

We are endeavoring to make the GENESEE FARMER one of the best Agricultural Journals in the United States; and from the many expressions of approval we have recently received from intelligent farmers, we are encouraged to believe that our efforts are appreciated.

We have a request to make of every reader of the GENESEE FARMER: *Try and get us at least ONE new subscriber.*

Furthermore, if there is no one acting as agent in your neighborhood, and you can not find time to act as agent yourself, will you induce some young man to do so? One of the best and most successful agents we have is a young man not over seventeen years of age.

We would call the attention of all our friends to the liberal Premiums offered to those who get subscribers. We are determined, if possible, to more than double the circulation of the GENESEE FARMER the present year. If our friends will take hold at *this time*, the thing will be done.

“Who Can Compete for the Cash Prizes?”

EVERYBODY. You can compete, and you stand just as good a chance of taking the highest prize as anyone else. The prizes will be awarded *and paid* to those who get the greatest number of subscribers. If you raise a larger club than anyone else, you will receive the highest prize of \$50. If you fail to get the largest list, you may take the next highest prize of \$30. If you do not succeed in taking this, you may take the \$20 prize; and so on. If you should be so unfortunate as not to take any of the Cash Prizes, you will receive a “Specific Premium” according to the number of subscribers you send. If you get thirty subscribers, you will receive, free of expense, a set of the bound volumes of the GENESEE FARMER for the last five years, together with a free copy of the FARMER and RURAL ANNUAL for 1864.

Club the Rural Annual with the Farmer.

EVERY reader of the GENESEE FARMER should have a copy of the RURAL ANNUAL for 1864. In clubs of six and upwards it is sent prepaid with the GENESEE FARMER for fifteen cents. We hope all our agents will club it with the FARMER.

Is the Genesee Farmer the Oldest Agricultural Paper in America?

A SUFFICIENT answer to the page of special pleading in the last *Genesee Farmer*, to prove that that paper is the “oldest agricultural journal in America,” may be found in the fact that the original publishers of that journal did not claim that it was a continuation of our old GENESEE FARMER. (a)

The first and second volumes for 1840 and 1841, of the “*New Genesee Farmer*,” of which Mr. Harris’ paper is a continuation, are before us, and they are numbered “Vol I” and “Vol. II,” showing conclusively that its proprietors and editors regarded the “*New Genesee Farmer* in accordance with its title, as wholly a “new” and separate concern, and not as a continuation of our *Genesee Farmer*. (b)

Not having a complete file of that paper, we are unable to say when or by whom our nine years’ labors were first added to the age of the “*New Genesee Farmer*,” so as to make it appear to be the “oldest agricultural paper in America,” but it is our impression that it is only within a very few years past, and since the real circumstances of the case might be presumed to have escaped the memory of the public, that this claim has been so pertinaciously and groundlessly advanced. (c)—*Country Gentleman*, December 10.

This is all that the *Country Gentleman* has to say in reply to our statement of facts in the December number of the *Genesee Farmer*. This controversy was forced upon us by the *Country Gentleman*, and we copied all that it had to say upon the subject, and think it should, in common fairness, have given our reply to its charges.

There are one or two points in the above paragraph to which we wish to reply:

(a) If they made no such claim, it is very evident, as we endeavored to show in the last number of the *Farmer*, that they regarded it as a continuation of the old *Genesee Farmer*, and also that it was generally so regarded by the old correspondents of the paper, and by Mr. Tucker himself!

(b) It was from these very volumes that our extracts were made, and which we think prove that the publishers did not regard it as wholly a new and separate concern.

(c) We have already given extracts from Vol. I and Vol. II, to show that the *New Genesee Farmer* was regarded as a continuation of the old. The following extract is from Vol. III:

“The character of the *Genesee Farmer*, both old and new, has been well known. * * * The proprietors feel assured that the long-tried friends of the *Genesee Farmer* will not desert the paper.”

The following is from Vol. V:

“The former friends of the paper will make such efforts to extend its circulation this winter [1843-4] as will leave no room to doubt their determination to sustain an agricultural paper in Western New York—the *Genesee Country*—which has become so extensively known abroad by means of its *Genesee Farmer*.”

The following extract is from Vol. VI:

“With this number will close the *fifteenth* volume of the old and new *Genesee Farmer*, and the sixth of the *New Series*.”

The following extract is from Vol. VII:

“It is now some seventeen or eighteen years since the *Genesee Farmer* was first started; and twelve or thirteen since Judge Buel commenced the publication of the *Cultivator*, at Albany. Neither the *Farmer* nor *Cultivator* has reason to complain of a lack of patronage,” &c.

We need not continue these extracts. They certainly

show that the former publishers of the *Genesee Farmer* regarded it as a continuation of the old *Genesee Farmer* established in 1831—and this is the only point in dispute.

We again ask, Did not Mr. Tucker himself regard the *New Genesee Farmer* as a continuation of his paper?

The Rural Annual for 1864.

THE *Rural Annual and Horticultural Directory* is now ready. Among its contents may be mentioned articles: On the Best Means of Enriching the Soil.

On Swamp Muck, and the Best Methods of Composting and applying it.

On Manures, with a table showing their Relative Value. On Protection to Orchards.

On the Connection between Roots and Leaves of Plants.

(A most valuable article, written expressly for the *Rural Annual* by Thomas Mechan, Editor of the *Gardeners' Monthly*.)

On Lime.

On the Culture of Roses in Pots.

On the Effect of Cultivation on Plants.

On the Best Climate for Sheep.

On the Cultivation of Celery.

On Gathering Fruit.

On the Culture of Hops. (A most valuable article, written for the *Rural Annual* by T. S. Harison, Esq., giving practical directions for starting and cultivating a hop vineyard. It is the best treatise on the subject yet published.)

On the Culture of Flax. (Written for the *Rural Annual* by D. W. Ray.)

On the Cultivation of Pears. (Written for the *Rural Annual* by F. W. Lay, of Monroe county, one of the largest pear-growers in the United States.)

On Fruit Culture in the West. (Written for the *Rural Annual* by D. S. Scofield, of Illinois.)

On Picking and Marketing Fruit. (Written for the *Rural Annual* by E. N. Herendeen. A most valuable article.)

On the Cultivation of Strawberries near Boston.

On the Best Way to Use Bones.

On Planting Trees.

With many other short articles of interest and value to every one engaged in the culture of the soil.

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To Our Canada Friends.

THE GENESEE FARMER has a large circulation among the intelligent farmers of Canada West. We trust that such will always be the case. Owing to the high premium on Canada money, we shall *prepay* the American postage without extra charge. If United States money is sent, 12 cents must be added to each subscription to pay the American postage. A large proportion of our Cash Prizes have usually been taken by our Canadian agents. If our agents who compete for these prizes send us Canada money, we shall pay them the prizes in Canada money.

Inquiries and Answers.

"THE HORSE AND HIS DISEASES." (A Subscriber, Dawn Mills, C. W.)—We can send you this book by mail on receipt of one dollar.

A SWELLED LEG.—Will some of your readers inform me what will cure a mare that has got a swelled hind leg from the hoof up? It received no injury, neither does it discharge any matter. The swelling falls some while travelling, but never disappears. She is a likely young mare, four years old. It is some four months since the swelling began.—W. T., North Hamden, N. Y.

SEVERAL INQUIRIES, some of them in type, are crowded out this month. We are always pleased to receive inquiries on subjects of general interest, and shall endeavor to attend to them more promptly in future.

OUR friends tell us that the *RURAL ANNUAL* for 1864 is the best number yet issued, and our orders for it were never so large as at this time.

THERE has been few if any material change in prices since last month, and we therefore omit our usual market report.

THE POSTAGE on the GENESEE FARMER, when sent in clubs to one address, is only four cents a year.

Special Notices.

The Best Literature

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BEST AMERICAN WRITERS

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For particulars see another column of this paper.

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ADVERTISEMENTS.

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CAUTION! As spurious Lyes are offered also, be careful and only buy the **Patented** article put up in **Iron** cans, all others being **Counterfeits**.

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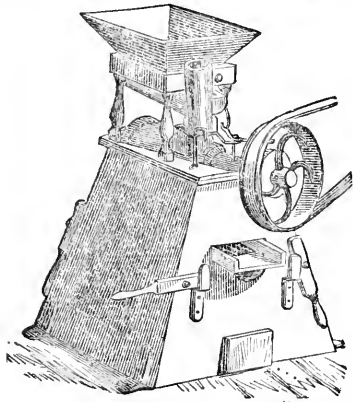
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jan12

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The whole amount of the Loan authorized is Five Hundred Millions of Dollars. NEARLY FOUR HUNDRED MILLIONS HAVE BEEN ALREADY SUBSCRIBED FOR AND PAID INTO THE TREASURY, mostly within the last seven months. The large demand from abroad, and the rapidly increasing home demand for use as the basis of circulation by National Banking Associations, now organizing in all parts of the country, will, in a very short period, absorb the balance. Sales have lately ranged from ten to fifteen millions weekly, frequently exceeding three millions daily, and as it is well known that the Secretary of the Treasury has ample and unfailing resources in the Duties and Imports and Internal Revenues, and in the issue of the Interest Bearing Legal Tender Treasury Notes, it is almost a certainty that he will not find it necessary, for a long time to come, to seek a market for any other long or permanent Loans, the INTEREST AND PRINCIPAL OF WHICH ARE PAYABLE IN GOLD.

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The Government requires all duties on Imports to be paid in Coin; these duties have for a long time past amounted to over a

Quarter of a Million of Dollars Daily,

a sum nearly three times greater than that required in the payment of the interest on all the 5-20's and other permanent Loans. So that it is hoped that the surplus Coin in the Treasury, at no distant day, will enable the United States to resume specie payments upon all liabilities.

The Loan is called 5-20 from the fact that while the Bonds may run for 20 years, yet the Government has a right to pay them off in Gold, at par, at any time after 5 years.

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These 5-20's can not be taxed by States, Cities, Towns or Counties, and the Government tax on them is only one and a half per cent. on the amount of income, when the income of the holder exceeds six hundred dollars per annum; all other investments, such as income from Mortgages, Railroad Stock and Bonds, &c., must pay from three to five per cent. tax on the income.

BANKS AND BANKERS throughout the country will continue to dispose of the Bonds; and all orders sent to us direct by mail, or otherwise, will be promptly attended to.

The inconvenience of a few days' delay in the delivery of the Bonds is at times unavoidable, the demand being so great; but as interest commences from the day of subscription, no loss is occasioned, and every effort is being made to deliver the Bonds as promptly as possible.

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LIBERAL SPECIFIC PREMIUMS:

1. To every person sending us *six* subscribers, at 50 cents each, (\$3.00) we will send, prepaid by return mail, a copy of the *Rural Annual* for 1864.

2. To every person sending us *eight*, at 50 cents each (\$4.00) we will send, prepaid by return mail, a copy of *Miner's Domestic Poultry Book*.

3. To every person sending us *ten* subscribers at our lowest club rates of 50 cents each (\$5.00) we will send a copy of *Rodgers' Scientific Agriculture*, or, if preferred, a copy of the *Genesee Farmer* for 1864, and also a copy of the *Rural Annual* for 1864, prepaid by mail.

4. To every person sending us *twelve* subscribers at 50 cents each (\$6.00) we will send prepaid by mail a copy of Emerson & Flint's new book, *The Manual of Agriculture*.

5. To every person sending us *sixteen* subscribers at 50 cents each (\$8.00) we will send, prepaid by mail, *One Dollar Package of Flower or Vegetable Seeds* of the choicest varieties. Also, a copy of the *Farmer and Rural Annual* for 1864.

6. To every person sending us *eighteen* subscribers at 50 cents each (\$9.00) we will send prepaid by mail a copy of *Everybody's Lawyer, or The Horse and his Diseases*; and also a free copy of the *Farmer and Rural Annual* for 1864.

7. To every person sending us *twenty* subscribers at 50 cents each (\$10.00) we will send prepaid by mail a copy of *The Horse and his Diseases, Rodgers' Scientific Agriculture, and Miner's Domestic Poultry Book!* (If preferred, a copy of *Everybody's Lawyer* will be sent in place of *The Horse and his Diseases*.)

8. To every person sending us *twenty-four* subscribers at 50 cents each (\$12.00) we will send the entire set of the *Rural Annual and Horticultural Directory* for eight years, handsomely bound in two volumes, and also a free copy of the *Farmer and Rural Annual* for 1864.

9. To every person sending us *thirty* subscribers at 50 cents each (\$15.00) we will send prepaid by mail or express a set of the *Genesee Farmer* for 1855-9-60-'61 and '62, handsomely bound in five volumes, together with a free copy of the *Farmer and Rural Annual* for 1864.

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To create a little emulation among our Agents, as well as to pay them as liberally as possible for their efforts in our behalf, we offer the following CASH PRIZES to those who get up the largest clubs in any part of the United States or Canada:

\$50—TO THE PERSON sending us the *highest* number of subscribers before the 15th of March, 1864, at our lowest club rates of 50 cents each, we will send FIFTY DOLLARS in cash.

\$30—TO THE PERSON sending us the *second highest* number (as above,) we will send THIRTY DOLLARS in cash.

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JOSEPH HARRIS,

Publisher and Proprietor of the Genesee Farmer,

January 1, 1864.

Rochester, N. Y.

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THE GENESSEE FARMER

PRACTICAL SCIENTIFIC FARMERS OWN PAPER

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No. 2.

WALKS AND TALKS ON THE FARM.—NO. 2.

In the *Genessee Farmer* for November, 1863, we published an extract from the *London Poultry Chronicle* recommending putting up fowls in a coop three weeks before they were killed, and feeding them liberally on oat-meal mixed with milk. A correspondent of the *Boston Cultivator* pronounces this practice unnecessary, asserting that fowls can be well fattened while running at liberty. This was not denied. All that was claimed was, that the chickens would be fatter and better for being confined and well fed for a few weeks before being killed. I had a dozen put into a coop some three weeks ago, and to-day we had a pair of them for dinner. Nicer chickens I never tasted. I would pay more for one such chicken than for a pair of the scrawny things so common in our city markets.

They were of the Dominique breed, but I do not think this was the reason of their excellence. They were in good thriving condition when put into the coop—as fat, indeed, or more so, than the majority of those sent to market; but this three weeks of liberal feeding in confinement made them very fat, and greatly improved their quality.

Come and look at the sheep. I have been disposed to think that Merino sheep were not easy to fatten; but I am now satisfied that this is a mistake. I have rarely seen sheep do better. A butcher offered me \$6.00 a head for them to-day—but they are worth at least \$7.00 a head, and I intend to keep them until I can get \$8.00. High as grain and hay are, I think those who are feeding sheep will get their money back.

I have several times alluded in the *Farmer* to the fact that good farmers suffer less from dry weather than poor farmers. The best farmers in England dread nothing so much as a wet summer. The past season in England was exceeding hot and dry, approximating closely to the heat of our American summers. Poor farmers complained loudly of the drought; but on the whole the wheat crop has been the best ever raised in England.

I have heard E. S. Hayward, one of the most successful farmers in this section, say that he believed he could raise a good crop of corn if not a drop of rain fell from the time it was planted until it was harvested. He would make the land rich and get it into good condition, and then keep the horse-hoe constantly at work among the corn.

Mr. Truman M. Smith, who has a farm near St. Paul, Minn., wrote me a short time ago in regard to the extreme dry weather in that State the past season. He says that from the time of sowing in the spring until after harvest, they had not rain enough to wet a man's shirt through. But in spite of all this he had very fair crops. He sold 5085 bunches of asparagus, grown on less than one-third of an acre, for \$318.75.

Mr. Smith is a Western New York man, but very enthusiastic in regard to the soil and climate of Minnesota, where he has resided for some years. He thinks Minnesota will prove to be one of the best States in the Union for sheep and stock of all kinds. The winters are long and cold, but they are dry and clear, and this for sheep is a great advantage. Sheep will stand anything better than wet weather.

Mr. Hayward says he does not feed his horses either grain or hay. He keeps five horses, and gives them a bushel of mill-feed twice a day with cut straw, and occasionally a carrot or two. The mill-feed costs him 25 cents a bushel, so that besides the straw his horses cost him only 10 cents a day. If fed hay alone they would eat at least 30 pounds each per day, which, at \$15 per ton, is worth 22 1/2 cents. He puts straw into the racks and lets them pick out what they will, and uses what they leave to litter them with. The cows pick over the litter, and in this way he manages to get out all the nutriment there is in the straw.

Mr. Robert J. Griffith, of Phelps, Ontario county, N. Y., was telling me to-day his process of growing peppermint. He has been in the business over twenty years. He raises about ten acres annually. I always supposed that rich, moist bottom land

was best for peppermint, but he says that while you get a greater growth from such land, it does not produce as much oil as good dry wheat land.

The cultivation is quite simple. Turn over a greensward early in the spring, and make it as fine and clean as possible. Then, with a shovel-plow, make ridges about twenty inches apart. The roots of the peppermint are then dropped lengthwise in the furrow in a continuous line. Cover them about two inches deep. If the land is loose and mellow, this can be done with the feet as you walk along in dropping the roots. The earlier the roots are planted in the spring after the ground can be got in good condition the better.

As soon as the plants start, so that you can see the rows, put in the cultivator, and hoe and pull out such weeds as can not be got at with the hoe. This will have to be done two or three times during the summer. The cleaner the land can be kept the better the crop.

The mint will be ready to cut about the first of September, when the crop is about half in bloom. Cut with a scythe, and let it lie about half a day, until wilted, but not so that the leaves will break. Then put in small cocks. It is then ready for the still. The crop in this condition is from three to four tons per acre.

The distilling process requires some experience, though it is simple enough when once understood. Mr. Griffith uses a boiler eleven feet long and twenty inches in diameter. This is large enough to distill one hundred acres. His whole apparatus cost \$300, but one plenty large enough for ordinary purposes would not cost over \$150.

The mint is put in large hogsheads with a false bottom perforated with holes, about one foot from the bottom. Steam is introduced below, and there is a pipe at the top which is connected with a quantity of pipe surrounded with cold water. The steam extracts the oil from the peppermint, and carries it with it through the pipe at the top, and as the steam is condensed the oil rises to the top of the water, and is drawn off and sent to market. The process requires about three-quarters of an hour to each hogshead. Two acres can be distilled in a day.

From eighteen to twenty pounds of oil is about the average yield per acre, though as much as forty pounds is sometimes obtained the first season from good land. The oil now brings \$3.75 per pound.

The second year no labor is required to clean the crop. It occupies the whole land; but the yield is not quite as large as the first year. After the removal of the second crop the land is plowed shallow, say not more than four inches deep, and the next spring is well harrowed. In this way two more crops can be obtained as good as the first two,

and no labor is required to cultivate and weed. All you have to do is to "cut and still."

It is said that more peppermint is grown in Lyons and Phelps than in all the rest of the world! There are several persons that raise as much as one hundred acres each. The oil is well-known throughout Europe, having taken the first prize at the Great Exhibition in 1851, and also I believe at the International Show at Paris. There is a steady and increasing demand for it.

The stalks and leaves, after they are taken out of the still, make excellent fodder. Cattle will eat it in preference to clover hay.

Mr. Griffith says he has used for several years a mixture of one bushel of plaster, two bushels of unleached ashes, and one-half bushel of salt as a manure for corn, and finds it very beneficial. He puts about four tablespoonfuls to each hill after the corn is planted and before it comes up. It has a very marked effect on his land. Last year he put one hundred and thirteen bushels of unleached ashes on eighteen acres of corn. He had not enough to quite finish the field, and he says that on this part the corn was not *half as good* as on the part that was ashed.

A nurseryman from the West was in my office today who came to Rochester to buy peach trees. He said that the nurserymen here could not supply him. They had no more than they needed for their own customers. He offered \$100 per thousand for them, but they were not to be had. A few years ago they could have been bought for \$40 per thousand. Cherry trees are equally scarce. The nurserymen anticipate lively sales the coming spring.

In looking back over the last three years, it seems strange that shrewd business men should have felt so uncertain in regard to the effect of the war on the prices of our agricultural and other products. I contended in the *Genesee Farmer* for September, 1861, that if the war continued for two or three years prices would rapidly advance. Some of my friends laughed at the idea. But "history repeats itself," and it would be well for us all to heed its lessons. I may be pardoned for feeling a little proud of that article, written when everybody thought we were on the brink of ruin, and farmers sold their products for less than the cost of production. I was myself offered corn that year in Bloomington, Ill., for 9 cents a bushel, cash, or for 10 cents in "trade!" At Vandalia I was offered eggs at 3 1-2 cents per dozen, and "the barrels thrown in!" Potatoes were offered at 5 cents a bushel, but found no purchasers! I will read an extract or two from that article:

"War to us is a new thing. We are not used to it. We do not understand its effects. Go to England and talk to the common people, and they will

complain of 'poor times,' and some one will be pretty sure to remark: 'If we should have war, times will be better.' Point to a farmer that has got rich, and the reply will be: 'That was in war times.' An English farmer once told us that when he was a young man he was working in the field, and a friend who was returning from town beckoned him, and, when he got within hailing distance, called out: 'Napoleon has escaped from Elba!' Nothing could exceed his delight. He leaped, shouted, threw up his hat, and started at a 'double quick' to carry the joyful news to others. Napoleon at large meant war, and war meant high prices and good times for the farmers. This is undoubtedly a short-sighted policy. War in the end results in great loss to a community; but while it is in progress it makes money abundant, and increases the price of commodities and the profits of producers.

"In this country we have not as yet felt the effect of this increase in money, and its consequent depreciation in value. We have suffered from the derangement of business, the want of confidence, and all the other evils of war, but have not felt any of the counter-effects. There has not been time. We are now spending a million of dollars per day. So far, this money has been *borrowed from the future and is spent in the present*. If this state of things continues, it can not fail to make money exceedingly abundant, and consequently to lessen its value. But, other things being equal, the price of commodities increases as the value of money depreciates. Thus, if a farm will pay 8 per cent. interest on \$50 per acre, it will pay 4 per cent. on \$100; and, other things being equal, the price of land should advance exactly as the value of money decreases. If we needed any proof of this, it might be easily adduced. Hume, in his History of England, says: 'The rapid depreciation of money [in the reign of Elizabeth] caused an astonishing rise in the price of commodities.'

"The *Encyclopedia Britannica* says: 'In 1797 the Bank of England was restricted from paying in specie, and the consequent facility for obtaining discount gave a fresh stimulus to agriculture. * * * This, together with high prices, inspired all classes with a sort of agricultural mania.'

"The same authority states that from 1809 to 1814, during the last war with Napoleon, the depreciation of paper currency was rapid beyond all former example, and prices were never so high before or since.

"For twenty-three years (from 1793 to the termination of the war in 1816,) England spent \$370,000,000 a year, or an aggregate of \$8,510,000,000, or more than double the whole property valuation of Great Britain then, and nearly as much as that of the United States now. A considerable portion of this vast sum was spent abroad, and \$263,000,000 of it was paid as subsidies to foreign nations. We are now spending money at about the same rate, say one million dollars per day, but in our case the money is *spent at home*. It merely passes from hand to hand. To fire away so much money may be very foolish, but, looking at it merely in a financial aspect, it is no worse than spending it in an extravagant style of living, or in luxuries of foreign manufacture. But we do not *pay* the money. As we said before, we borrow from the future and spend in the Present. A nation may be regarded as an individual. If a young man falls heir to an estate worth \$100,000, and he mortgages it for \$75,000, and spends the money, he will have lots of cash and a good time, as long as it lasts. This is precisely what we are doing. Uncle Sam is mortgaging his estate and

spending the money at the rate of a million a day, and we certainly ought to have a good time as long as this state of things continues. We shall have to smart for it in the end; but that is not what we are considering at this time."

Every word of that article has proved true, except as to the advance in the price of farms. But if I am not greatly mistaken, we shall not have to wait much longer for a general rise in the price of all productive real estate. Those who have sold their farms find when they come to buy another that it is not easy to suit themselves. I saw a farmer the other day who had sold his farm for what he considered a high price; but after looking round for several weeks he came to the conclusion that he had sold too cheap. Land at the West is rapidly advancing, and one or two farmers from this section, who have sold their farms and gone West, would be glad if they were back in their old homes.

I know a farmer living near this city who sold last year over \$4000 worth of produce from his farm of only fifty-five acres. No wonder that he, too, is looking round for another farm; but he is too shrewd a man to sell his old one. He thinks he can pay for another farm from the profits of the one he now occupies, which is in a high state of fertility.

I wrote to Mr. H. S. Collins, of Collinsville, Ct., asking his advice in regard to steaming food for cattle. I had the pleasure of visiting his beautiful farm last summer. He soils all his cattle in summer, more or less, on irrigated grass, clover, oats, peas and green corn, and in winter on steamed food. He keeps from forty to fifty head of cows on a farm that formerly would barely support a yoke of cattle and one cow!

In regard to steaming fodder for his cows Mr. Collins writes:

"I began in 1857. The next year I put up a small upright boiler and hogshead. I got no pressure, or very little, and it took me five hours to steam corn fodder and straw satisfactorily. My horses did not work the horse-power well, which I relied on for cutting fodder and grinding grain, and I had to remove one machine and replace it with the other, each day. As they must be *fast* on the floor, this was a trouble. I sold the small boiler, and put up an upright tubular eight-horse power boiler and a four-horse engine and a line of shafting, so that I could cut fodder, grind grain, cut roots and saw wood, while the exhaust steam went to the tanks to cook the chaffed stalks. This would do the steaming in one and a half to two hours, according to the pressure, &c. It was always exhaust steam, mostly, that was used; no more fire was made, but the communication between the boiler and tanks was opened after we were through cutting.

"We used, generally, one-third straw to two-

thirds corn-stalks or fodder, and cooked our roots, turnips and beets with the chaff, adding one quart of cotton seed meal per head, and corn-meal in some casks, steaming all the meal, &c., &c., where it was possible. Of roots I used one peck per head—all I could afford—giving beets and carrots to milch cows and turnips to dry cows and other cattle. Carrots I seldom cooked, or parsneps. I do not think that cooking any roots (save potatoes) was any benefit, except as it made the chaff still more palatable—the cows picking out first what pieces of cooked roots they can find, showing their liking for them; but as they were cooked very soft, and cut first in slices, much was mixed with the chaff and the whole mass was flavored by them. I used, at first, no water on the chaff, but made a pailfull per cask in steaming, and used this for messing the cows—warm at night and morning.”

In this respect Mr. C. differs from Messrs. Birnie and Peters, who use a large tank and add a considerable quantity of water to the fodder before turning on the steam. They use no pressure, and it takes four or five hours to steam the fodder satisfactorily. Both these gentlemen steam cut hay; but Mr. Collins thinks that if the hay is of good quality it does not pay to steam it. Mr. Collins says:

“Messrs. Birnie and Peters both use a large tank (as I did one year,) put on much water, and are some four or five hours steaming, using no pressure, and making no other use of their steam, but cutting hay by horse-power. Mr. B. thinks large quantities of water and slow steaming preferable, if not necessary. I can not use over two pails of water per cask (of 150 to 200 gals.) as it all runs through and lies at the bottom of the cask, making more heat necessary to cook the chaff, &c., and being over my steam pipes and in the way. How Mr. B. uses so many gallons (I am afraid to say how many for fear my memory may not be accurate) to advantage, I can not understand. I must say, however, that both Mr. Birnie and Mr. Peters (who has followed his method) are men of unusual judgment as well as enterprise, and their conclusions worthy of trust. Both these gentlemen steam cut hay—a thing I hardly think worth doing if of the best quality.

“Three or four years since my stalks gave out some few weeks before grass, and I steamed the very best of upland hay, treated in precisely the same manner as my stalks and straw. My men all anticipated an increase of milk. I did not, and as I expected, the cows gave a little less—but little, it is true, but this was in the end of April, when the juice in the stalks was dried up. Earlier in the winter I think stalks worth much more than hay for producing milk. My cows ate them all clean when prepared as described above—the refuse being hardly anything.

“One winter I gave only two feeds of steamed food and one feed of hay. They did no better—hardly so well—as when they had not a *taste* of hay for months. Another winter I gave an extra feed of hay at night, (three feeds of steamed food as usual,) but to no benefit that I could discover. I did this on the theory that they needed a bellyfull. I did not see that they ate less steam-food, or but little less. They did not clean it up quite so well, but they did no better for the extra hay; and they ate enough before, looking full as possible, and being hearty and well. I do not feed so highly as many milkmen, and am seldom troubled with sick cows and never lose any; but they always come out in good order in the spring, and are often too fat to suit me. Farmers about me used to say that my method ‘was well enough for one year, but I would find my cows would not stand it long—that it was natural for cows to eat dry hay, and this soft stuff would not suit them.’ Of course this is nonsense, for cows in a *natural* state would live where they could eat green grass all the year, and the nearest approach to such succulent food is the most ‘natural’ to them. Experience has proved that cows so fed *last longer* and increase in quantity as they grow older—some of my best cows having increased in yield *yearly* from the beginning, and being now twelve and thirteen years old. If anything happens to stop the steaming for one day, they always fall off in milk largely, and are two or three days in coming back to their former quantity.

“For steaming I prefer corn fodder (sown in drills;) next, cornstalks or clover hay; then hay. As I have said before, I doubt the economy of steaming *good* hay; nor would I advise any one to be at the expense of proper fixtures unless he wished to produce *milk in winter*, or was peculiarly situated—having corn-stalks, clover hay, poor hay, good straw, &c. Oat or barley straw, with two-thirds corn fodder, is *nearly* as good as all corn: wheat straw next, and rye straw last. I have made no fair trials on clover hay steamed, but think it would give more flesh, but less milk, than good corn fodder. Probably no better use can be made of clover than to steam it.

“I would always cook oil-meal or any similar feed—corn, oats, beans, &c.; or if this could not be done, soak at least twelve hours before feeding. There is no use in grinding oats for horses or cows, unless you desire to feed the meal on hay. If well soaked they will be perfectly digested.

“If the object be to feed as little as possible, by steaming they can be made to eat every thing clean, and much fodder, straw and poor hay can be used that would otherwise be nearly worthless. My object has been to make my cows eat all I could of fodder, hay, &c., in winter, thinking this true economy for producing milk, and to feed grain only

so far as it returns payment in milk. In this cows vary exceedingly. Giving warm food and drink is the best way to produce milk in cold weather, and bran or other feed will do more good, given in a plenty of warm water, than in any other way. I mix it in my casks only to make the fodder relish better, and mess milch my cows twice a day, with the water drawn from the casks.

"In regard to the quantity cows will eat of steamed food, I can arrive at no definite or exact conclusion, from the varying weight of corn fodder. I could give you figures enough, but they would only prove the great difference in weight of different lots. I think cows eat about as much in bulk as of hay. Mr. Peters, who weighs his hay, made a statement, showing large savings in quantity. In using hay, one could come to some certain result; but I believe Mr. Birnie agrees with me in this matter of quantity: Of course large animals want more than smaller ones, but there is much difference in my cows of about the same size. They eat about three bushels a day of the steamed food, perhaps, on the average—some two bushels, some four bushels. Occasionally I have a cow who does not like this feed well, but she is never a large milker. These are always hearty and take to it generally at once, or in a few days. All cows show a decided preference for it *warm*—even *hot*—and I have not yet found any ill result from feeding it hot, though my theory is against *hot* food for man or beast, and in favor of it *warm* only."

I have no doubt that there is considerable advantage in soaking grain in water for twenty-four hours before feeding. In the great sheep experiments at Rothamsted, we had one pen of sheep that were fed (in addition to other food) one pound of crushed barley per head per day. These sheep increased 2 lbs. 1-2 oz. per head each week. Another pen were allowed the same amount of crushed barley, *soaked in cold water*, and fed the same food as the other pen, increased 2 lbs. 8 1-2 oz. per head per week. In other words, the sheep having the soaked barley gained half a pound each per week more than the other pen. I must add, however, that they eat more food.

At first, we soaked the barley only twelve or fourteen hours, but finding this did not soften the barley as much as was thought desirable, we afterwards soaked it thirty-six hours. One of the sheep in this pen having steeped barley gained, on the average, four pounds per week!

This is the largest gain I ever knew when the experiment was continued for any length of time. We used to weigh all the sheep every week, and I have known many that would weigh five or six pounds more one week than they did the week before, but the next week they would not increase at

all, and not unfrequently would lose weight. We attributed this to the varying amounts of food or water in the stomachs of the animals. But this one particular sheep gained, on the average, four pounds per week during the whole period of the experiment.

The White Willow excitement, it seems, is no longer to be confined to the West. An agent of the company has been travelling through this section, and has obtained many orders. He called on one of my neighbors who (so he informed me afterwards) to get rid of his importunities, told him that if I would purchase he would. The agent was a good talker, and told some wonderful stories in regard to the rapid growth of this willow. He carried with him sections cut out of the trunks of trees three or four years from planting, and it would seem that if half what is claimed for it is true, it must prove an exceedingly useful tree on the Western prairies where timber is so scarce. It makes good rails in four or five years. For screens it must be admirable. Few of us begin to realize the advantages of a belt of timber on the windward side of our orchards and gardens.

But it is as a hedge plant that its advocates claim for it a superiority over all other plants yet discovered; and the agent waxed eloquent as he discoursed on the increasing difficulty and expense of fencing our fields, concluding by asserting that this willow would make a perfect fence in three or four years. And then it is so cheap! He would furnish the cuttings, ready to set out in the spring, for only \$40 per mile! My neighbor could not resist the eloquence of our Western friend, and concluded to "go in." I have had so many tempting offers to make my fortune by investing in such projects that I am not so easily persuaded, and thought it safer to wait for more information before I concluded to fence my farm with the White Willow.

ENGLISH VS. ARABIAN HORSES.—The much vexed point as to the merits of English and Arab horses has just again been tried in Cairo. Ali Pacha, who has the finest stud of Arabs in Egypt, maintained that no English horse could run against an Arab for four miles. His Highness Halim Pacha offered to run "Companion," a well-known English racer, against him for any sum he liked. The match was run from the first station on the Suez Desert to Cairo. The English horse won in a canter by more than a half a mile. Such a crushing defeat has taken all courage out of the partisans of Arab horses. What astonished the natives most was that "Companion," beating his adversary by so great a distance, was perfectly fresh and ready to turn around and run over the distance again, while the Arab horse was quite exhausted and blown.

SHORT SERMONS FOR FARMERS.—NO. 2.

WRITTEN FOR THE GENESEE FARMER.

Moreover the profit of the earth is for all; the king himself is served by the field.—*Ecclesiastes 5: 9.*

THE earth was given for the sustenance of the creatures which God placed upon it. Every living being has a divine right to the means of subsistence which it produces. No number of its inhabitants, if they had the power, have the right to monopolize the sources of sustenance to the exclusion of others. The division of the earth into national territories and subdividing it into farms, is agreeable to the divine purpose in creation. This arrangement is beneficial, if not necessary, in order to produce an abundance of the means of subsistence in a civilized state. The principle of "mine and thine" is necessary to stimulate and sustain that care and labor which are essential, since the fall, to develop the life-sustaining resources of the earth. God recognized this principle of ownership in land, or the division of the earth into farms, by allotting distinct portions of the soil to each family of Israel. In settling his people in the land of Canaan, he allotted certain definite portions of the soil to each tribe, and these subdivided it to each family. If any family became poor and were obliged to dispose of their land to pay their debts, the fee-simple could not be transferred to the creditor. It was contrary to the divine law. The sale gave possession only for the period of time intervening between the date of the transfer and the year of jubilee, when all land reverted to the lawful heirs of the original owners. The price was graduated by the nearness of the time of transfer to the year of jubilee. The following was the law on the subject: "And ye shall hallow the fiftieth year and proclaim liberty throughout all the land, unto all the inhabitants thereof: it shall be a jubilee unto you; and ye shall return every man unto his possession. Then shall he depart from thee, both he and his children, and shall return unto his own family, and unto the possessions of his fathers shall he return. In the year of jubilee the field shall return unto him of whom it was bought, even to him to whom the possession of the land did belong." This law restrained speculation in land, which, in all ages, has been most unfavorable to its proper cultivation. When speculation in land prevails, we see in this country large quantities thrown out to "commons" in young cities. It becomes too valuable to cultivate. We see such commons in Rochester. Through the spirit of speculation large tracts of land remain unsold in new portions of the country, which are held to make fortunes by its advance through the labors of actual settlers.

The laws which God enacted in order to perpetuate

the original division of the promised land into farms of sufficient size for the wants of each family, prevented the addition of farm to farm by the more prosperous and the consequent reduction of a large class of the population to a landless state. The inequality which might arise in this respect during the period between the years of jubilee was rectified every fiftieth year. Our Creator, by this wise provision, made Palestine profitable for all the people. No farm could fall permanently into other hands than those of the descendants of the original proprietor.

What a day of joy and gladness was that when those who had fallen into poverty and were dispossessed of their farms to satisfy the demands of their creditors, returned again to possess the old homestead! They were taught by experience the evils of debt, and the necessity of diligence in tilling the earth in order to avoid the recurrence of temporary dispossession.

"*The king himself is served by the field.*" None are so high as to be independent of the skill and labor of the husbandman. The king himself can no more exist without the productions of the earth than his meanest subject. He must perish without them.

Not only do the necessaries of life come from the soil through the labor of the husbandman, but directly, or indirectly, every luxury comes to the world through him. The mechanic and the artist could not pursue their vocations if the husbandman should cease his labor, or produce only sufficient for the supply of his own wants. All, from the highest to the lowest, are dependent upon him. His success is the success of all, even the king.

Such was the state of society anciently that he who served the king, attained to an honorable position. Hence, when it is said that "the king is served by the field," it implies that the husbandman's vocation is an honorable one. God took pains to make it so among his chosen people. To this end he enacted a law against usury, and by usury, in the scriptures, is meant interest. This law made it despicable for a man to live on the interest of his money. It was contrary to law—the law of God. The present indisposition of the Jews, as a people, to cultivate the earth and live by traffic, shows how far they have departed from God.

REMARKS.—We see, from what has been said, the usefulness of the husbandman's vocation. He labors for himself, not only, but through his toil all, high and low, are supplied with food. Farmers, therefore, ought to respect their calling. He ought to honor his vocation by skill and diligence. A slovenly farmer is a dishonor to a sin-cursed world. Unsheltered and half-fed cattle, rickety fences, fields overgrown with weeds and thistles, and dilapidated buildings and farming implements, reproaches Him

who gave us the earth from which to obtain our bread by the sweat of our brow.

We see the benevolence of God in encouraging agriculture by the laws which He gave his ancient people. He who despises the vocation, impugnes the goodness of the best of beings. Farmers' sons! you little think what attitude you assume towards God when you cherish a dislike for agriculture, and desire some other business which you fancy will be more respectable and less laborious. No business is more respected by all wise men than farming. We have known some farmers' sons become, in the end, poor, miserable creatures, who were too lazy or too proud to work on a farm. If you wish to be respected—if you wish to be independent—dispel the desire to get a living in some easier way.

WHY DON'T HE DO IT?

When a farmer knows that the winter season is the time to prepare bar-posts and repair all kinds of farming tools, Why don't he do it?

When a farmer knows that wagons and sleighs, and other carriages, will last a great deal longer when properly housed, Why don't he do it?

When a farmer knows that cows will do better on a less quantity of feed if properly stabled through the winter, Why don't he do it?

When a farmer sees the boards dropping from his barns and out-building, and knows that it would take only a few minutes to nail them on again, Why don't he do it?

When a farmer knows that a good part of his farm would be improved by plowing it in narrow lands—thus giving the water a chance to drain off—Why don't he do it?

When a farmer knows that most of his plow-land would be greatly improved by sowing clover, Why don't he do it?

When a farmer knows that it would be for his advantage to take the *Genesee Farmer*, Why don't he do it?

J. O. D.

GOOD POTATO CROPS.—A correspondent of the *Ohio Farmer* states that he raised, last season, 350 bushels of potatoes per acre. This called out a statement from A. R. Innis, of Franklin county, Ohio, to the effect that he raised, in 1857, "392 bushels of Neshannocks to the acre." Last year he planted 25 bushels of Neshannocks, and raised \$300 worth from them.

BONE-DUST FOR CORN.—Mr. M. F. Reynolds put three tons of bone-dust, last spring, on three acres. The land was first plowed and the bone-dust then sown and harrowed in. It was then planted with corn, and the yield was over one hundred bushels of shelled corn per acre.

BUILDING STONE FENCES.

A New Hampshire correspondent of the *Genesee Farmer* writes as follows on this subject:

"A stone fence built upon a light, porous soil, if laid with tolerable skill, will stand for a long time; but to construct one that will stand upon a wet, springy tract of land, especially if it is sloping, is far more difficult. The action of the frost will gradually loosen the foundation, and, when the ground becomes soft in spring, the stones are crowded out of place, and in a few years the fence is in ruins. When the line of direction is east and west, fences are injured most by frost, for the ground upon the south side is thawed earlier in spring.

"These difficulties, however, may be overcome. If the proposed fence is to be on a loamy soil that is not very wet, it will be sufficient to make a small ridge or embankment, say four feet wide and one foot high, to build the wall upon; but if the land is spongy, dig a ditch three or four feet wide and deep enough to remain uninjured by the frost; fill it with small stones, or partly fill and cover, and then your fence will have a foundation which can not be shaken.

"The foundation well prepared, the next thing is to have the fence well laid. Only such stones should be used as will be firm and afford a good surface to build upon. They should be so laid as to secure these results, and endeavor should also be made to have each principal stone, in all except the lower course, rest upon two below it. It requires no little skill to build a stone fence well, but by following these rules one is not likely to go far out of the way; and when it is once made it is very durable."

Another correspondent in Oneida county, N. Y., writes as follows, adding that stone walls constructed according to this method in the most frosty sections of Wales have stood for centuries:

"Plow four furrows six or eight inches deep and ten inches wide; take all the sods, or turfs, and lay them on one side—also all the loose dirt that is easily taken up with a shovel and lay it on the same side with the turfs, both to be on the opposite side from the stones for the wall; then commence setting stones on the sides of the trench large enough to rise about three or four inches above the outside surface; then fill in with small stones until within two or three inches of the top of the border stones; then throw on a few shovelfulls of fine dirt, passing the shovel over it to make it level; then commence laying on the border stones, being careful to have them tip a little toward the center; then commence again with the small stones and dirt as above described. When the dirt is used up, cut the turfs at suitable lengths and lay lengthways of the wall, between the edge of the turfs close up to the edge of the

border stones, filling the middle space with small stones. In this way there will be about two tiers of dirt and two of turfs—if more, all the better.

“It will be seen that this wall will be about forty inches on the bottom and twelve inches across the top, when raised about four feet in height. If there is no stone handy large enough to reach across the top, continue on as before until the top is well rounded off.”

IRISH AGRICULTURE AND EMIGRATION

It appears from the recent report of the Registrar General of Ireland that there was a decrease of 144,719 acres of land under cereal cultivation in Ireland in 1863 as compared with 1862. There was also a decrease of 19,358 acres in green crops. There is also a great decrease in the number of live stock. It appears that there is a decrease in 1863, as compared with 1862, of horses 23,715, of cattle 116,615, of sheep 152,201, and of pigs 89,522. In the value the decrease between the two years is, in horses £189,720, cattle £757,997, sheep £167,421, and of pigs £111,903, showing a decrease in stock in the hands of the farmers to the enormous amount of £1,227,041.

An English paper, commenting on these facts, exclaims:

“Has all this money been hoarded, or have the farmers in Ireland been obliged to drag out their existence by living and paying rent out of capital? or will the deficiency be accounted for by the enormous drain on the population by emigration? We learn that in the first seven months of 1863, that is from January to July, both inclusive, no less than 80,506 persons have left the country, being nearly double the number which left in the corresponding months of the previous year. Truly we fear ‘there is something rotten in the state of Denmark.’ Have the priests no power to stop this drain? have the landlords of Ireland no inducements to offer to stay this loss of labor? For,

“A bold peasantry, its country's pride,
When once destroyed, can never be supplied.”

WHEAT AFTER WHEAT.—A farmer in this county informs us that he has a field on which he has grown five crops of wheat in succession, and the sixth one is now on the ground. It looks as promising as any wheat in the county. The five previous crops, taking one year with another, have averaged twenty bushels per acre. Last year it was in Soules wheat and the yield was eighteen bushels per acre. The year before it was Mediterranean, and the yield was twenty-five bushels per acre.

A GOOD RUTA BAGA CROP.—Mr. M. F. Reynolds informs us that he raised 750 bushels of ruta bagas last season on three-quarters of an acre of land. They were drilled in rows two feet apart, and thinned out in the rows. The land was liberally dressed with bone-dust.

CROWING A NUISANCE.

At the Weston-super-Mare Police-office the following rather remarkable petition was recently laid before the Bench:

“TO THE MAGISTRATES OF WESTON SUPER-MARE. The following petition for the abatement of a nuisance is respectfully addressed by the inhabitants of Sydenham Terrace, Shoulderham street, &c.:

“Gentlemen: Whereas since the middle of July the above-mentioned neighborhood has been disturbed nightly by the crowing of a remarkably fine Spanish cock, from twelve o'clock at night until late in the morning, so as to banish sleep from the inhabitants of the back rooms in the houses mentioned above, your petitioners pray that Mr. Williams, the shoemaker, (to whom the cock belongs,) may be compelled either to keep the cock where it can not be heard beyond his own premises until a reasonable hour in the morning, or to part with it. This petition has been delayed for the purpose of trying remonstrances with the proprietor of the cock, but they have been disregarded, and treated with ridicule and contempt. Invalids suffer so much from want of rest that they will be compelled to remove, and even healthy persons will not remain where their rest is incessantly broken, so that your petitioners will be much injured if the nuisance is not speedily abated. They therefore pray your Worships' powerful decision upon the subject.”

Mr. Kinglake, after reading the petition, said it was rather a difficult subject on which to give advice. He supposed that the rights and privileges of the lord of the poultry-yard had been interfered with, and his domestic happiness blighted, or he would not have crowed out of his grief at so early a period (laughter.) It might seem to the Court a laughing matter, but in truth the loud crowing of a cock in the ears of an invalid was as great a nuisance as the howling of a dog at night. He remembered the judgment of the County Court Judge at Exeter, where the owner of a Bantam cock was made to pay the expenses of a neighbor changing his lodgings, as the cock had been known to have crowed five hundred times in less than five hours. The judgment was appealed against, but the Superior Court confirmed the County Court Judge's opinion, and laid down a wise and humane principle that no one had a right to injure the health or peace of his neighbor. Mr. Williams was a respectable tradesman, and would, no doubt, confine the cock in a box, where his crowing could not be heard.

“A FARMER in Otsego county last year cleared from fifty cows \$2,005, or over \$40 per cow.” This is a good yield, but with cheese at 16 cents per pound and butter at 30 cents, it is nothing very remarkable.

ICE-HOUSES.—A double-walled room, with the interstices filled with sawdust or spent tan, built in one corner of an outhouse, provided with drainage and ventilation, are all the essentials.

DAIRY COWS SHOULD BE WELL FED.

WE have repeatedly called the attention of the readers of the *Genesee Farmer* to the advantages of more liberal feeding in case of milk cows. A certain amount of food is required to support the vital functions of the cow, and the milk is derived from the food furnished in excess of this amount. The following extract from an essay on Dairy Management, in the Transactions of the New York State Agricultural Society, is to the point:

"Pastures should not be overstocked—the supply of food must be abundant, otherwise serious losses will be incurred.

"There is nothing gained by stocking clean up to, or a little beyond, the full capacity of the land, and trusting to an extraordinary good growing season to bring the animals through. Much milk will require a proportionate amount of food; and we have yet to see the cow miserably kept on scanty fare who can turn that fare during the season into 600 or 700 lbs. of cheese. The rule should be the largest quantity and best quality of dairy products per cow, and not the largest number of cows, without thought or care as to the respective quantity or quality of milk from each.

"Let this be illustrated a little more fully: The annual average quantity of cheese made by some of our dairymen has reached seven hundred pounds per cow. The average in the dairy of Mr. A. L. Fish, as has been given in the reports, was in 1845 seven hundred and seventy-five pounds per cow. At the latter figures, thirty cows would yield twenty-three thousand two hundred and fifty pounds of cheese, which, at seven cents, amounts to \$1,627.50. Now compare this with a dairy of sixty cows, averaging four hundred pounds per cow, and we have twenty-four thousand pounds, which, at seven cents, comes to \$1,680 or only \$52.50 to balance against the thirty additional cows. The average of Mr. Fish's dairy may be said to be an extreme point to reach, but the four hundred pounds per cow at the larger dairy is believed also to be more than the average amount realized by a very great proportion of dairymen. What has been attained by one, can by good management be realized by others. Of one thing there can not be much doubt; there is a faulty management somewhere, which demands correction, and it is the duty of every dairyman to study all the causes likely to influence or control the quantity or quality of his dairy products, and try to reach the highest standard of excellence in all that pertains to his business. Let not the land be overstocked: make provision for supplying food for a certain number of cows, and if the quantity of cheese in the aggregate is to be increased, let the poorer animals of the herd be selected out and sold, and their places filled by

better stock, rather than adding to the herd dull and refuse cattle, and scrimping all in their food during a part or the whole of the season."

IS IT BEST TO FEED CATTLE TWO OR THREE TIMES A DAY?

THIS question was once asked in the *Genesee Farmer*. W. H. Gardner, of Lee county, Illinois, writes as follows on the subject:

We are in favor of three times per day for several reasons. First—It lessens the time from one meal to the other and less quantity is required, so that none will be likely to be trodden under foot. Second, every farmer should see his stock of cattle at least three times each day, or have them seen. Third—the animal thus fed will rest more of its time and not having so long to worry about hungry, or half hungry, will keep in better condition.

We know from observation that these are facts. A poor widow of our acquaintance used to surprise us by the uniform good condition in which she kept two cows on a very meager supply of hay. We found by watching her closely that they got a *little very* often—but a mouthful—her cows were always ready to eat, yet never very hungry.

We worked one winter for a farmer who had the name of keeping his cattle badly. We found them in good condition; they had not wasted ten pounds of hay per head. The secret was, they were fed a small quantity five times daily at regular intervals.

By far the most rapid growth we ever saw made in swine, was produced for six years in succession, by Mr. Peter Rhoda, of Hornby, N. Y., who fed light at six, nine, twelve, three, six and nine again, reaching plus 400 nett pork in nine to ten months.

From these facts we urge that it is *best* to feed three times daily.

A GOOD WHEAT CROP.—At a recent agricultural meeting in England, the Rev. J. B. Webb mentioned the fact that a farmer in Suffolk last year had 300 1-2 bushels of wheat from four acres of land. Another gentleman present stated that there were instances where 80 bushels of wheat per acre had been obtained last year. The unusually hot weather in England last year was highly favorable to the wheat crop, especially on rich land.

A PROFITABLE WESTERN FARM.—A. C. Fulton, of Davenport, Iowa, states in the *Prairie Farmer*, that the gross receipts from his farm of sixty-two acres last year amounted to \$10,111! The net profit, after deducting all expenses, was \$7,905! Twenty acres were put in wheat and corn; the remainder in onions, potatoes, sorghum, &c. It was the onion crop, undoubtedly, which afforded such large profits.

STORY OF A SHEPHERD DOG.

A WRITER in the *Prairie Farmer*, over the signature of "Wool-Grower," tells a long and marvelous story about his shepherd dog, from which we make the following extract:

"I will add a short account of what I used to do with my dog 'Colonel,' which, I fear, those who have never seen a well-broke dog work will be apt to class among dog stories.

"When 'Colonel' was six months old, I drove with him a flock of sheep from Ohio to Illinois, spending forty-seven days on the road. He had never been behind a flock of sheep until the day I started. In four weeks' time I could send him into a hundred-acre pasture, and he would make the circuit of it and bring the flock out without leaving a sheep, and without hurrying them out of a walk. By the way, it is very important to break a dog to go slow—the most of dogs are too eager and hurry sheep too much. I ferried the Wabash river at Attica. The boat ran up on a low lever bar where were no yards or fences to assist getting the sheep aboard. With two hands and the dog I loaded the boat without having to catch one of them, and the flock made five boat-loads. I got up on the bank where the dog could see me well, and then by motions made him jam the flock down tight to the boat, and when well jammed up, mount on their backs, and by barking and *nipping*—not severe enough to say biting—shovel them right in. No ten men without a dog could have loaded them so soon, if at all.

"When I had occasion to drive, not to exceed ten hundred sheep, a few miles, I wanted no other help but the dog's. I have driven that many sheep along the road six or eight miles, where it was unfenced sometimes on one and sometimes both sides, myself being ahead of the flock, the dog behind, the sheep so strung through the timber that perhaps I did not see the dog for an hour at a time.

"When the flock got to spreading out fan-shaped, as a flock will where there is a chance to pick, 'Colonel' would go out and turn in the corners, passing up just far enough to effect that purpose, and no farther. He used, apparently, as much judgment in passing up the side of a flock just so far, as would a man. When he was in doubt about an order, he would stop and look back until the motion was repeated. I have many a day driven all over the prairie and taken a flock in every direction by walking on before, leaving him to bring the sheep after me, without looking at him or speaking to him. I could send him two miles out into the prairie after a thousand sheep which were strung for half a mile, and he would collect and drive them all up to me. I have owned other dogs which would do the same, but none but him that did not rush the sheep too

hard. I could send 'Colonel' over a fence and on ahead a quarter of a mile to stand in a cross-lane to prevent the flock from turning out of the road. I have herded a thousand sheep with him for weeks on pieces of grass surrounded by other crops. When herding on a piece of grass bounded on two or more sides by other crops, I watched one side and let him guard the remaining sides. His manner was to steal quietly along in the edge of the corn wherever he saw the sheep approaching too near, and show himself merely sufficient to make them turn their heads in another direction, yet not enough to frighten them over to the other side of the field. With him I could feed off a piece of grass, bounded on all sides by corn, clear to the edge, without allowing the sheep to destroy a dozen ears."

FAILURE OF THE CORN CROP AT THE WEST.

AFTER being told through the newspapers for the last three months, that the corn crop of Illinois was reduced below the moiety by the frost of the 31st of August, an Illinois farmer writes to the *New York World* from Macon county, that it was not the frost, but a long-continued drought, that cut short the corn crop in Illinois. He says that from the 29th of May to the 15th of July last, his ground was not wet to the depth of three inches. I have noticed many a season in Western New York when the ground was not wet even three inches deep during most of the months of June and July. Yet a maximum crop of corn was grown on all highly manured, early planted, and well-tilled fields. In the year 1854 there was more than two months that the ground in Seneca county was not wet three inches deep; I never saw the corn leaves before or since, roll as badly as they did that season; and all late-planted, unmanured and scantily cultivated corn fields yielded a sorry crop; yet there were some large crops of corn grown here that season on the best manured soils under the best tillage; the leaves would roll by day, but they were broad and glistening with dew again the next morning. It can hardly be too dry a season for the corn crop on a soil whose hygroscopic or absorptive capacity is increased by high manuring. The well-stirred surface of such a soil, attracts the nightly dews so as to be well moistened every morning, when the hard and compact, or the dry unmanured sandy surface is dry and unquicken. Another great promoter of continued moisture in such a soil, is the constant union of the nascent hydrogen of the manure as it decomposes, with the oxygen of the atmosphere, a water forming process which the drought only accelerates when the manure is thoroughly mixed in the soil.

But apropos of Illinois corn growing, when in 1852 I passed through the State, noting with admiration the spontaneity with which the newly-broken

up prairie soil yielded a crop of corn to a very little labor, I was then of opinion that as soon as the redundant vegetable matter of the soil was worn out by cropping, that however rich it might remain chemically, its absorptive capacity would be so much reduced, that without stall manure the crop would be very liable to be cut short by the droughts of summer. It would now seem that the time has already arrived, and that the failure of the corn crop this season in Macon county is not to be attributed to the August frost, but to the long drought operating on a soil that has so far lost its absorptiveness by continued cropping with little manuring, until it can no longer successfully resist a trying summer drought.

S. W.

MAKING SOUR KROUT.

EDS. GENESEE FARMER: Perhaps the following directions for making *sour kroust* may be of use to some of the many readers of the *Farmer*.

Prepare a clean tub or barrel, of such size as may be desired, put in a layer of quartered cabbage heads or smaller, six or eight inches deep. With a sharp, clean spade, cut as fine as may suit taste. With a wooden maul made of a stick six or more inches in diameter, stamp the cut cabbage until pretty moist, the more you stomp the better. Sprinkle three or four tablespoonfuls of salt. Then proceed with another layer as before. Continue so till the tub is full, or as much as is desired. Cover with cabbage leaves, on which place boards suited to the roundness of the barrel,—about an inch less all round. Put a weight of sixty or more pounds on and set in a place where it will not freeze. In a few weeks it will be sour. But if juice does not rise in a day or two, a gallon or more water may be added. But if properly stomped it will certainly sour without water being added. If a carrot cutter be handy it will be preferable to the spade.

ABRAHAM BAER.

A PROFITABLE CORN CROP.—Mr. George Waffle, of Gates, informs us that he had, last year, a field of nine acres of corn that produced over eighteen hundred bushels of ears. The field was manured last spring and plowed in. It had been in corn the year before, and produced nearly as well. Mr. W. says he could have sold the stalks for \$100, and he estimates that the stalks and pumpkins paid the whole expense of cultivation, leaving the corn net profit. In other words, the *profits were one hundred dollars per acre*.

THE Massachusetts *Plowman* says that pleuropneumonia has again broken out in a herd of cattle at Northboro. It is a most terrible disease, for which as yet no certain remedy has been discovered. Isolation is the best preventive.

SHORTHORNS vs. DEVONS.

"AN Old Norfolk Farmer" contends in the *Mark Lane Express* that the Devons are superior as a whole to the Shorthorns. He says:

"I admit that this latter breed fattens to a larger size in a given time, and at a given age, than the Devons, Herefords, and Galloways, and are therefore considered more profitable; but, on the other hand, they eat more food; so that you can keep three Devons or Galloways on what it costs to keep two Shorthorns. I admit, too, that some of them are large milkers, and therefore they are more profitable to the city dairymen; but the milk is not so rich; and if this, and the extra quantity of food they eat, are taken into account, it is a question whether a dairy of Ayrshires or Alderneys, or even Devons, would not, on the whole, be as profitable. I further admit that the present high state of perfection to which the Shorthorn breed has arrived is extraordinary, and reflects the greatest credit and honor on both the originators and the sustainers of the breed; but, on the other hand, that excellence must still be kept up by the same artificial or artistic means employed hitherto; for, if any relaxation were to take place in the selection of the breeding stock, they would degenerate to their original inferiority."

ARE OATS AN EXHAUSTING CROP?

EDS. GENESEE FARMER: In the November (1863) number of the *Farmer*, page 334, under the head "Wheat after Oats," you ask our views on the subject.

In Vermont I never heard oats called an exhausting crop. In Northern New York, and here in Michigan, I have heard a good deal said about it. Those same men who call oats exhausting, will turn right round the very next day and say that oats are light, worthless grain, and the straw not near as good as wheat straw. Now, I take it that if the nutriment is extracted from the soil, it *must* be in the *crop*. The sum of the matter seems to be just this: Wheat is a very delicate feeder, and oats a gross feeder; so that if the land is cropped with wheat as long as wheat will grow, it may then be cropped with oats and the exhausting process carried on still further. I have never failed in getting a good crop of wheat after oats, and it is quite common here in Cass county, Mich., to turn over oat-stubble for wheat.

H. W. RIDER.

SUMMER FALLOW FOR WHEAT.—The California *Farmer* says the practice of summer fallowing for wheat is greatly on the increase in some sections of California. It says that Mr. Keeper, of Chico, has 100 acres of summer fallowed wheat that yielded *double* that which was not summer fallowed.

THE BREEDING OF HORSES.

H. G. FOOTE, Esq., President of the St. Lawrence County Agricultural Society, in his address at the late Fair, makes the following sensible remarks:

"In an address which I had the honor of delivering before this Society a few years since, the small horses then being bred were unsparingly condemned. The efforts of the government to obtain horses of good size, the paltry price these under-size animals go-a-begging to obtain—for they can not command prices—and the large sums realized for fine and stately animals ought to convince the most incredulous that we must have more attention paid to the improvement of this stock. We need here to breed horses of all work. We can not at present breed the race-horse and the hunter, for we are too practical a people, nor the carriage-horse and the dray-horse as separate breeds. We must combine the excellencies found not in the extremes of these breeds, but in the means. We have, as a county, but little use for the saddle horse simply. The light grades and the general ease of our roads render carriages the most agreeable mode of locomotion, and we require horses of such size that they can draw them with ease to themselves, and with moderate speed. High speed in a carriage-horse, with due deference to the opinions of some who may be present, is of no great account with most business men. Seven or eight miles an hour is quite as high rate of speed as prudent persons usually care to drive either for safety to themselves, their carriages, or the good of their horses.

"We ought to breed horses of not less than 15 1-2 or 16 hands in height, as our standard, and of an average weight of not less than ten hundred and fifty pounds. They ought not, with our deep snows, much to exceed twelve hundred pounds. They should be spirited, and not fractious. Compactness and smoothness of figure, and firmness of bone, muscle and skin, should be carefully regarded. Strong good colors, like bay or black, with dark limbs and hoofs, should be particularly looked after in breeding. Let every farmer look as carefully to his stock horse as if he were to become a purchaser. Weak knees, flat feet, and many physical defects are transmissible. The farmer must not be taken by the mere show or getting up of the horse. He must look as well for his solid avoirdupois qualities. The breeding of a poor horse is an absolute loss. The breeder of this, as of all other animals must also study the requirements of his market. Now is the time to begin right. The drain upon the country has been large, nay, enormous. The low grades of horses have largely gone, while of the best grades we have never had but few, and they are always taken early and eagerly, and at high prices. The demand

for good horses is not transient; it is permanent, and for many years to come they will command highly remunerative prices."

FARM WORK FOR FEBRUARY.

CONTINUE the labors of the winter, and prepare for the summer's campaign. Attend constantly to the comfort of domestic animals. Draw out and spread manure on grass lands; or pile it up and make compost heaps of it, in such fields as will need it. Fill ice-houses. Prune orchards. Cut grafts and pack them in damp moss or saw-dust for spring use, taking care to have them correctly labeled. Lay plans for spring and for the entire season, so that men may be regularly employed at all times without crowding or confusion. Secure good farm laborers—the best are always engaged first—the highest priced are often the cheapest, by saving constant watching or superintendence. A dollar or two more per month will often secure several dollars more in labor or its equivalent, good management. Open drains or channels in wheat-fields, which have become choked by snow or ice, should be cleared out on the approach of thawing weather. Cattle should be kept off meadows. Horses with heaves may be relieved by feeding with wet, cut feed, especially if fine, well cured cornstalks.

On stormy days pick over apples in cellars, and such as are beginning to decay, if abundant, may be regularly fed to cattle, horses and swine. Oil harness, make farm gates and ladders, and panels for hurdle fences.

Read carefully the directions for last month, [See *Genesee Farmer* for January, page 19], which apply equally well at the present season.—*Tucker's Annual Register*.

GREAT CROPS IN CALIFORNIA.—All accounts agree in representing the climate of California not only delightful for man and animals, but also highly favorable to vegetable growth and the production of immense crops of cereals. The last number of the *California Farmer* contains notices of some of the farms in Chico. One gentleman (James Hill) has a noble farm of 5000 acres. He keeps from 300 to 400 head of stock. Last year he had from 300 to 400 acres of wheat and barley. The yield was from 40 to 50 bushels per acre. A neighbor of his also had 300 acres, the average yield of which was 50 bushels per acre. Another farmer in the same neighborhood raised 5000 bushels of superior wheat on 100 acres.

SOLVENT FOR OLD PUTTY AND PAINT.—Soft soap mixed with solution of potash or caustic soda, or pearl ash and slaked lime, mixed with sufficient water to form a paste. Either of these laid on with an old brush or rag, and left for some hours will render it easily removable.

Prize Essays.

ON THE MANAGEMENT OF SHEEP.

BY W. R., COBBOURG, C. W.

"BUT of one of our domestic tribes no trace has yet been found in the rocks; * * * I refer to the sheep,—that soft and harmless creature, that clothes civilized man everywhere in the colder latitudes with its fleece, that feeds him with its flesh, that gives its bowels to be spun into catgut, with which he refits his musical instruments; whose horns he has learned to fashion into a thousand useful trinkets, and whose skin converted into parchment, served to convey to later times the thinking of the first full blow of human intellect across the drear gulf of the middle ages."—*Hugh Miller.*

Sheep are certainly among the most useful of our domestic animals. With them prosperity and industry are introduced into a country,—every one knows how much they contribute to our personal and domestic comfort; as there are few or none of the inhabitants of our country, from the highest to the lowest, who are not daily arrayed in some article of dress made from the cast-off covering of the sheep; besides, in every house, from the cottage to the palace, they furnish the most comfortable articles of furniture.

From the earliest records of our race we find that sheep furnished a source of profitable employment to mankind. Abel was a keeper of sheep, and through succeeding ages, the tending of flocks and herds formed the employment of a large part of the then population of the earth. That this business was a source of profit in early times cannot be doubted, but their flocks ranged over extensive plains without an owner, under climates where a plentiful supply of food was at all seasons provided by nature; little manual labor was required, and pasture was easily renewed by a constant change of place.

From this mode of life under a genial climate, arose the songs of the poets of the ease and happiness of the pastoral life; but such a mode of management can only be realized in the earlier stages of society or among a sparse population, where the market for the surplus of the flocks is at a considerable distance; such a style of husbandry is now realized in Australia to some extent; and to a certain degree in Spain; but there amid a numerous population it is now only maintained in a somewhat sickly state by rigorous governmental enactments.

The sheep, though remarkable for its harmlessness and timidity, is yet capable of enduring a great diversity of climate and situation, and this it does not by turning to the elements a stubborn front, but, with the meekness of its tribe, he entirely alters his character and habits, under the influence of varied latitudes and circumstances. We find them in every variety of situation, from the storms and ice of Cape North, to the parched sands of Sahara. The sheep

of the mountains of Thibet and Tartary, covered with a coat of shaggy hair, scarcely seems the same animal which produces our Saxon and Merino wool, and it would be rather difficult to trace the blood of our Cotswolds and Leicesters in the hump-backed Persian, or the fat-rumped sheep of the Cape, whose tail alone, we are told, forms a joint large enough for the table. This faculty of adaptation peculiarly fits the sheep (like the horse or the dog) to be the friend of man—a companion under his ever-varying circumstances, and forms the ground-work on which we have to build our different modes of management.

With the present high prices for wool and fair prices for mutton, there has been of late few kinds of husbandry more profitable than sheep farming. The purposes and objects for which sheep are kept are very different. One class keeps just a sufficient number to furnish wool and mutton for the wants of their own families; another class has in view to furnish mutton, lamb and wool to some local, neighboring market—making their keeping, however, subordinate to their crops; and others again, place their chief dependence upon their sheep, and conduct all their other farm operations with this view. The same may be said of the different breeds, one class keeping one variety, another a different variety, as taste or circumstances may dictate; some will keep a breeding stock, depending on their sales for breeding purposes for their profit; others will depend wholly or chiefly on their wool, and others will feed exclusively for the butcher. As a general rule it will be found that those who live in new, thinly populated countries, far from a market, will have to place their chief reliance on their wool; whilst in older countries, near towns and villages, mutton will be of equal or greater importance than wool; every one must be guided by his own particular circumstances, as to what *breed* he keeps, and for what purposes he keeps them. The long, severe winters of our northern latitudes will always prevent us from being great wool-growers for the general markets of the world; if we are even able to supply our own wants, it is the very most we can expect.

Little need be said of the management of sheep in summer. Though they will live on almost any kind of pasture, yet the best kind of food for sheep is a nutritious, grassy pasture, growing on a dry, firm soil. The sheep is most assiduous in picking up food and will range over a great space in quest of the herbage which it is fond of, white clover being one of its favorite plants. With plenty of pasture, water and a little salt, sheep require very little care through summer and autumn.

In our country where they have to be housed, in winter sheep require a good deal of attention, as like all other animals they pay their owners well for good care and keeping; they delight in dry, airy

roomy houses or yards, as sheep do not thrive well when too much confined. In moderately fine, frosty weather, in the early part of winter they are all the better for having the run of a pasture field; care should be taken to keep them in as spring approaches, as the ground is soft. We have never found any better winter food for sheep, than well-got first-crop *clover hay*, fed in properly constructed racks. On plenty of this alone sheep will winter well, and come out in good condition in spring; if however, they are to be fattened for the market, they require, in addition to hay, oil-cake, grain or roots, or all of these. Where clover hay is not to be had, any other hay will answer, or they may be wintered on pea, oat or wheat straw, if supplied in liberal quantities, and not too well thrashed; in this case they ought to have grain in addition to the straw.

As the spring advances and the lambing season approaches, a few roots of any kind may be given them in the middle of the day, when they are not apt to freeze, though they should remain some time uneaten; and as sheep are fond of a variety of food, it is desirable to make as many changes as practicable.

Care should be taken not to let sheep out too soon to pasture in spring, as once they get a bite of young grass they will not eat dry fodder. Sheep during the lambing season require close attention, as some will have weak lambs; others will need to be assisted; some will have dead lambs, and in that case it is desirable, if a good strong ewe, to put a twin lamb on her. Lambs may be castrated and docked when from three to five weeks old, and weaned when from four to five months old. The operations of working and shearing sheep are well known, and require to be attended to at the proper season.

ON BUTTER MAKING.

BY M. S. B., AURORA, NEW YORK.

"As cleanliness is next of kin to godliness," so it is near of kin to good butter. You can not make good butter without it. All the different modes, however plausible they may seem, are as the passing shadow for shade, unless utensils, and the place where milk is kept, be not thoroughly cleaned. Boiling water for utensils should be used profusely. As the most of vessels for milk should be of tin, it is perfectly easy and safe to clean them with boiling water or steam. Let those that are of wood undergo the same treatment. Pans that hold about six quarts, and are flaring at the top, are best, because so much more of the milk comes in contact with the air at the top. Air, in a slight degree, is necessary for the separation of the cream from the milk. The cream should be skimmed into a tin cream-tub before it is loppered, set upon the cellar bottom and covered tight until it is wanted.

A good cellar is the best place for milk in warm weather; and the best place for setting it is on a swinging shelf about four feet from the bottom of the cellar. As butter or cream so easily absorb the scent of whatever surrounds it, great care should be taken that nothing may surround it that emits an effluvia or smell, even should it be pleasant or fragrant, for as one mark of the gentleman is absence of perfumery, so nothing can be added to make good butter better.

When the cream is ready for churning, rinse the churn well in cold water, place it in, and if quite warm weather put the churn in a tub of cold water to churn. This implies, of course, an up and down churn, which for making good butter we prefer to any other. When the butter is so far coagulated as to rest on the dasher, rinse down with a quart or so of cold water, and when sufficiently gathered raise it with the ladle into a bowl, previously saturating the bowl with cold water. After working off the buttermilk, pour over it cold water sufficient to wash it. If this should not wash off the buttermilk sufficiently, add more, until it is clean from it. Then add one ounce of finely pulverized Liverpool salt to one pound of butter, working it in gently, and placing it securely covered on the cellar bottom. Next day work over again, and perhaps again, if the brine seems not to be thoroughly ejected. It is then ready for the table or to be packed in firkins.

Care should be taken not to churn or handle butter in any way too fast or quick, as it is thus easily converted into oil, and we lose the good butter.

It is said that the English make the best butter. It may be. We have never tasted it, but as they almost invariably use the hand to raise it from the churn as well as to work it over, one would suppose it would be greasy; therefore we have not adopted it. Whatever is the difference in our butter-making, it is open to inspection, and if there is any improvement we should be glad to adopt their mode. It is possible their grass may contain some aroma of which ours is deficient; or the water may be more pure, or the climate more congenial to that department of agriculture; but we shall not believe it until more rational modes for good butter making are adopted here. One thing to be considered in the comparison is, they have plenty and efficient help, while in our small dairies, and perhaps larger ones, there is a deficiency in this department. The work is not unfrequently left to women, who have not time or strength to attend to it, and thus it is often done superficially and hurriedly.

It is said there was but little good butter made in the State of New York last season, because it was so wet and hot. How is it, then, that England, noted for its humidity, should excel us? Again, on visiting New York city and some of the adjacent counties,

it was told me there was much poor butter owing to the *dry*, hot weather that had prevailed there last season.

If our climate is at fault, it is greatly remedied by a good cellar and the use of tin. An enlightened, well-informed mind and judgment will overcome many obstacles, and is entirely necessary in making good butter, where every specific rule can not be laid down. But whether it be too dry or too damp, too hot or too cold—whether it be our pastures or our pantries that are at fault, let us not acknowledge that it is for the want of tact that we do not make good butter. If to find out the cause is the way to cure, I hope some one more scientific will investigate and lay the results before the public that they may profit thereby. It is well-known that we greatly excel in strength to other nations in many things, but this excelling in *strong* butter is by no means an enviable fame.

THE CULTIVATION OF WINTER AND SPRING BARLEY.

BY A. F. H., EAST AURORA, N. Y.

THE cool climate and long-growing season of England and adjacent isles, is much better adapted to the growth of barley than the United States. Barley grown in England usually weighs one-fifth more than the barley of this country. Nevertheless, the cultivation of barley has been on the increase and now ranks among the most prominent products of Western New York. Its present high price, owing to the increasing demand for malting purposes, and the partial failure of the wheat crop, have favored its increased production; but when the cost of raising barley is compared with that of other grains, and its value as food for horses, and for fattening pork, beef and mutton is considered, one is led to believe that its present prominence is legitimate and deserved.

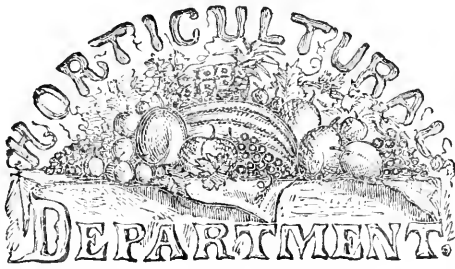
Winter barley is a tender plant and much more liable to winter-kill than winter wheat; but when once through the winter, it is insect proof, and the yield is at least double that of wheat. It is useless to attempt to grow winter barley on land that is inclined to heave. It is not advisable to apply much fresh manure, as this grain is apt to lodge; but it requires a soil which has been made rich by the application of manure to the previous crop. Prepare the ground (which should be naturally dry, or made so by underdraining), the same as for winter wheat, and sow from one-and-a-half to two bushels to the acre, at any time between the 15th of September and the 1st of November; it usually does best if sown early, so as to get a good root before winter sets in. Unless in sheltered places, I would not use the roller after sowing, as the unevenness of the surface as it is left by the harrow, serves to retain the snow and protect the plants. It ripens ten days or

two weeks earlier than winter wheat, and may be harvested in the same manner as spring barley.

The culture of spring barley is more generally understood. It should be sown as early as possible, on a warm, light, gravelly or sandy loam. It seldom does well on a recently inverted sod, and follows a hoed crop most successfully, as it suffers peculiarly from a weedy soil. It requires a rich soil, although the manure should have been applied to the preceding crop. A fall-plowed clover ley, if properly prepared, will produce good crops. The land should be got in a fine mellow condition by the use of the harrow or wheat cultivator. Two bushels to the acre is usually sown. If drilled, a less quantity is required. If the ground is dry and light, as it should be, it will be beneficial to roll the ground after the seed is harrowed in. Rolling, not only benefits the growth of the plants, but it enables the cradle or reaper to cut closer to the ground, which is important if it is to be bound, which I prefer to mowing, as it can be handled more conveniently, and requires much less room in the mow. Some practice mowing spring barley, and then rake it with a horse, but considerable is wasted by shelling, and I should not recommend the practice, unless it may be in cases where it is lodged. It shells easily when ripe, and great care, therefore, should be taken to harvest it in season. Care should also be taken that it is thoroughly dry before it is put into the mow, as it is, perhaps more easily injured by heating than any other grain. The straw is readily eaten by stock and should not be neglected. There are several varieties of barley. Those most generally known are the two-rowed, four-rowed and six-rowed. The first yields the heaviest, handsomest grain, but the last is the most hardy. Whatever variety is sown, care should be taken to obtain plump, perfect seed, and it is advisable to change frequently and obtain seed grown in a different soil or locality.

THE PRINCE OF WALES AT THE SMITHFIELD CLUB CATTLE SHOW.—The late Smithfield Club Cattle Show (the sixty-third) was the largest ever held. It was opened by the Prince of Wales, who, like his late father, Prince Albert, was an extensive exhibitor. He was accompanied by the Crown Prince of Prussia and the Duke of Brabant, and proceeded at once to examine the stock, "among which," says an English paper, "he was no doubt pleased to find that his own specimens were sufficiently distinguished, four out of seven of his oxen having been awarded prizes."

OILING BOOTS.—The application of castor-oil to new boots renders them as soft as a buckskin glove. It is also the best application that can be made to render a new boot water-proof.



GARDEN OPERATIONS FOR FEBRUARY.

BUT few have yet learned to appreciate at its full value the amount of sustenance which may be drawn from a well-cultivated Kitchen Garden.

At this season of the year, when active farming operations are, in a measure, suspended, would it not be well for the readers of the *Genesee Farmer* to consider how they may increase the luxuries of the garden?

Although but little can be done in the month of February in the way of actual, out-door gardening, yet much may be done in the way of *preparation* that will save much time when the urgent work of the farm draws so heavily on the thoughts and efforts of the farmer.

Now is the time—if it has not already been done—to establish some plan and system of laying out and cultivating the garden.

LOCATION.

And, first, is the the location of the garden the best that can be had within convenient distance of the house? Is the aspect as warm—the protection from cold winds as good—the soil as deep, mellow, and well drained, as can be obtained? If not, a change in locality is desirable. The tender vegetables of the garden are more seriously affected by unfavorable conditions in soil, exposure, &c., than the hardier field crops—although I am of opinion that farming would pay better in the *end*, if the whole farm was brought into the condition of a well cultivated garden.

MANURES.

If the garden did not receive a liberal dressing of manure in the fall—which I consider the better time—a quantity should be prepared for early application in the spring. Hog manure—of all the droppings of domestic animals (poultry excepted) I consider best to promote the growth of vegetation, while horse manure from its *heating* qualities is a great auxiliary to the early development and maturity of plants. A mixture of the two in about equal parts would form about as good a compost as could be devised for the garden. The more thoroughly they are mixed together the better. Such a compost heap can be made to good advantage this month.

SEEDS.

Now is the time to procure seeds for the garden before the seedsman's supply of new and valuable varieties is exhausted—and it will also afford you an opportunity to test their vitality in time to procure another supply before the planting season arrives, should any of them prove bad.

Soak them a few hours in tepid water, in a warm room, then mix with a little soil, and in a few days they will begin to sprout—if good. By counting out a dozen or so of each variety and testing them, you may know by the number that germinate how good they are, and how thick to sow them in the garden. By taking a little pains at this time in testing the seeds, the gardener may be saved a great deal of disappointment and aggravation, which he otherwise might feel in looking, in vain, in April or May, for the appearance of some favorite plant from seeds which had lost their vitality.

HOT-BEDS.

The wide-awake gardener is unwilling, in these go-ahead times, to wait for his cabbage, cauliflower, cucumbers, melons, tomatoes, egg-plant, &c., &c., until they can be started and grown entirely in the open air, and therefore is disposed to avail himself of any means of anticipating the season—hence, hot-beds are becoming quite common.

The hot-bed should be prepared this month, so as to be ready for planting the first of next. Its object is to afford artificial heat to plants, before the ground is thawed or warmed up in the spring. This is effected by the fermentation of manure beneath them, while they receive the light and heat of the sun, the cold being excluded by the frame and glass.

I have tried various forms of hot-beds, and consider the following the best—all things considered: In a situation sheltered from cold, northerly winds, with a clear southern exposure, dig a pit running east and west, 18 inches deep 5 feet wide, and about 12 feet long. Make a frame of inch-and-a-half stuff—spruce or pine—to fit within the pit, rising about 2 feet above the ground on the north or rear side, and 1 foot in front, making all tight by battening. The sashes should be 6 feet long, and wide enough to contain 3 lights of 7 by 9 glass, and would require 24 lights to the sash, allowing them to overlap one another 1-2 an inch. The sides of the sash should be strong enough to prevent their spreading apart, allowing the lights to drop out.

To fill the bed, use horse manure, pretty full of litter, and slightly fermented. Fork it over several times to break up the lumps, and mix the finer and coarser manure together. Make up the bed regular and level, beating down the manure with the back of the fork, leaving it about 2 feet deep before setting.

Put on the sash, and wait two or three days for the manure to commence heating, and then spread the loam on evenly over the surface, 4 or 5 inches thick.

The loam should have been prepared in the fall by sifting through a tolerably fine sieve, and covered with straw, so as to be ready for use before the ground thaws. After putting on the sashes wait until the loam is warmed through before sowing the seeds.

Nail narrow strips of boards on the inside of front and back, to support a plank to sustain the gardener while sowing and weeding the bed.

The hot-bed needs close attention until all the plants are transplanted into the open ground. In freezing weather it will want covering with mats, or straw—on warm, sunny days it will need airing—and at all times it will require frequent watering with tepid water. Always water at the close of the day, that the water may soak into the loam before too much evaporates. I will treat of sowing the hot-bed in the March number of the *Genesee Farmer*.

Many, in reading the directions for taking care of the hot-bed, may be discouraged from the undertaking, but when once planted, a few minutes each day will suffice to take care of it.

IMPLEMENTS.

Now is a good time to procure the necessary implements for cultivating the garden.

Some of them can be made to advantage by any farmer, and others obtained at the hardware or seed-store, always bearing in mind that the *best* tool is always the *cheapest* in the end. The gardener will require a good reel and line—the reel of iron, the line of hemp, about 6 rods long, and 1-4 inch in diameter. A good digging fork, will greatly facilitate the labor of digging over the beds, breaking up the lumps, and working in manure. A steel-tooth rake is indispensable to finely pulverize and level the beds, and to free them of stones, lumps, and rubbish. A spade, shovel, hoe, and the Dutch or shuffle-hoe will, of course, be among the important tools. The garden trowel, the weeding fork, the garden watering pot, and the wheelbarrow, with a wide wheel are great auxiliaries to easy and successful gardening. The above named implements would have to be purchased, but there are others that any man with a little ingenuity can construct for himself; among which are the hand-roller for crushing the lumps of dirt before sowing the seeds, and for smoothing and compacting the surface afterwards, the drill-markers, measuring rods, stakes, labels, &c., &c.

If these implements are provided now, and carefully laid away in the tool-house, it will save a great

deal of time and trouble when the busy season arrives.

To be well prepared beforehand for the work of the season, is half of the battle. R.

IMPROVING AN OLD MEADOW AND AN OLD APPLE ORCHARD.

THE following communication from an experienced and intelligent gentleman in Canada will be read with much interest, even by those who do not agree with his views in regard to the injurious effects of plowing and cultivating the soil among fruit trees:

Some years ago we rented a field, partly orchard and all meadow, to which it was very inconvenient, and indeed almost impossible to get manure. The grass had never been properly sown: it was mere wild grass as it is called—mostly couch or quack. The soil was a poor, shaly, yellow sand, which from the presence of thin veins of clay hardpan, running horizontally through it, and from the neighborhood of higher land was always more or less wet, with cold spring water—it was not wet enough to be swampy, but it was always cold and moist. The apple trees were most miserable affairs, stunted and covered with bark lice. All the branches were covered with these lice to the last year's growth, and the fruit was mere rubbish, although of good kinds.

We commenced with plaster, putting at the rate of a barrel and a half to the acre. We tried lime in some parts, and ashes in others, without marked effect. The plaster, however, told wonderfully; and the second year we had a great increase in the apples, and also of the grass. We then sowed the seeds from a hay loft over the whole. We fed cattle on it, and spread all the droppings in the spring. The grass mended tolerably, but the apple trees grew very fast. We continued this course for three years, putting on plaster every year. The grass continued good, and the trees grew so fast that they soon shed the old bark, and with it the bark lice, and bore fruit to the astonishment of every one.

We observed that where there was any high grass left in the fall, the meadow improved the next year. We still could get no manure to the place. The apple trees had spread their branches so low that cattle destroyed the fruit. We were afraid that the continued plastering without manure would ruin the ground, and therefore tried cutting the meadow once for hay, and *leaving the whole of the after grass to rot on the ground*. The success of this exceeded belief. The succeeding spring the grass was a month earlier than it was before. We continued the plaster and have since that time followed the same course. The apple trees are now grown to such an extent that pasturing is out of the question, and we now content ourselves with one cut of hay, and the apples

the last three years—we have had extraordinary heavy crops, as much as four tons per acre.

The adjoining field of exactly similar land, and similar grass, has been pastured, by a neighbor, in the usual manner, that is, eaten down in the spring as soon as there was a bite, then pastured the whole summer, and eaten down bare in the fall. The consequence has been that had the whole crop been cut for hay, it would have been scarcely worth the cutting and making—the grass would never hide a chicken, while ours, on the other side of the fence, could with difficulty be mowed, it was such a mat of vegetation.

This is not a mere casual experiment; we have now cultivated the field for nine years. We have quadrupled the amount the grass. We have the best bearing orchard in the neighborhood—all the tree and bark lice are gone from them, and the new branches which have come out are larger than the original body of the trees; and I have no hesitation in saying that the place is worth four times the rent it was when we commenced the system.

We have since tried other meadows on clay land, and the result is equal to that of our first experiment. I can, therefore, now safely say that if you want to improve your meadows, plaster heavily in the spring, cut the first crop for hay, then let the after grass grow, and leave it to rot on the ground. Plaster again each spring, and in three years you will have brought the land into the best meadow you ever saw.

Don't pasture after the first crop, but leave the whole of the after grass.

If you can manure without fear of the expense or trouble, I should say by all means do so; but whatever you do, see that you leave a heavy rug on the ground in the fall—so heavy that the frost will not be out of the ground so soon as in the neighboring land by a fortnight, and I will answer for the result.

As to an apple orchard, I have no hesitation in saying that if you can sell the fruit well, and your sorts are good, it will pay you to leave the whole crop of grass to rot on the ground, and you will never want for a full crop of apples. You must, however, plaster heavily each spring.

Adjoining the orchard above mentioned we have a garden with some apple trees in it. We manure this, and dig round the trees, and raise vegetables. These apple trees bear one crop in three years only, and the growth and health of the trees is not to be compared with those in the orchard, where the ground is never touched, or manured, except by the after grass and plaster.

People who either plow or dig in an orchard need not expect a certain crop of apples, or a thrifty growth of trees. The roots of the apple trees naturally seek the surface for the nourishment of

decaying vegetation. If you plow or dig you destroy these roots, and thus deprive the trees of the means of growth. No manure you can give will ever make up for this wholesale destruction of the roots of the trees.

After we had spread the seeds from the hay loft on the meadow, there came up a few stalks of broad or red clover; by leaving the after grass to ripen, the clover heads fell to the ground, and the seeds grew. We have now a fair proportion of clover all over in clumps, showing that it has spread from the original plants, and in the course of a year or two, the clover will be the main crop. On examining the clover heads among the roots of the grass last summer, (I mean those which had rotted down in the fall), we found the seeds safe in the cases; where the opportunity for their germinating had been favorable they had grown—the rest were apparently safe for future growth.

This proves to me that those who want to secure a crop of clover, should sow the clover seed in the state in which it would come from the flail, and before shelling or hulling. You thus secure a crop; for these seeds that do not grow at first will not perish, but remain safe in their cases until the time becomes propitious, and then they are ready to take advantage of it.

The usual objection to leaving grass in an orchard is the short-tailed mouse. We have plenty of these in our place, but they never touch the trees, having a plentiful provision of rug and grass roots. They seem to prefer that kind of provisions to knowing the bark. I think they never touch the bark unless driven to it by starvation. If, however, you fear the mice, fold a piece of wire gauze, well tarred, round the lower part of the stem of the tree, and they will be safe from all possibility of attack. VECTIS.

In a pamphlet, on "The Scarcity of Home-Grown Fruits," read before the Historic Society of Lancashire and Cheshire, it is said that some years since the boys in Christ's Hospital, (one of the richly endowed London schools), were so seriously afflicted with cutaneous diseases that they had to be sent home. A medical inquiry was instituted, and the cause was found to be the want of a fruit and vegetable diet. He deploras the high prices which lead to such things, and proposes, as a remedy, that all the railway lines should plant their unoccupied lands with apples—and urges also upon manufacturers to encourage the culture of fruit among their laborers.

THE *London Gardeners' Chronicle* comments on the folly of cultivating orange trees merely for ornament, when the fruit is so delicious and can be brought to such great perfection by proper care in ordinary hot-houses.

FRUIT GROWERS' SOCIETY OF WESTERN NEW YORK.

THE Winter Meeting of this Society was held in the Court House in this city January 27-28.

There was a good attendance of members and a fine exhibition of winter fruits, among which may be mentioned a splendid collection of Catawba, Diana and Isabella grapes from the Pleasant Valley Wine Company at Hammondsport, N. Y., and also a fine box of Diana, Rebecca and Isabella grapes from H. N. Langworthy, of Greece, N. Y. Ellwanger & Barry exhibited twenty-four varieties of winter pears—all in the finest condition!

The following subjects were discussed:

Is the Peach more hardy when budded upon the Plum?

The general opinion seemed to be that peach trees grown on plum stocks were no more likely to withstand severe winters than those grown on peach stocks.

The plum stock has a tendency to dwarf the trees somewhat, and for pot-culture it is desirable to work the peach on the plum. Also when peaches are grown on clayey soils, there is an advantage in planting those worked on the plum. But for ordinary cultivation it is unnecessary.

The best Method of Preserving Winter Pears.

The first essential point is to let them remain on the tree till thoroughly matured, or as long as there is no danger of frost.

Put them in half barrels and keep them in a cool place, such as a barn. Let them remain till very severe weather sets in—throwing some leaves over them to guard against frost. When there is danger of their freezing, remove them to a cool cellar. This is all that is needed. The opinion was expressed that there was no more trouble in keeping winter pears than winter apples.

Which are the best fourteen varieties of Pears for family use?

After a rather desultory discussion, a ballot was taken. There were 21 votes cast, and the following varieties (arranged in the order of ripening) received the highest votes, as follows:

Doyenne d'Ete.....	17	Seckel.....	16
Beurre Giffard.....	14	Beurre Bosc.....	11
Rostlezer.....	12	Duchesse d'Angouleme.....	18
Bartlett.....	21	Sheldon.....	17
Belle Lucrative.....	16	Beurre d'Anjou.....	14
Flemish Beauty.....	12	Lawrence.....	17
Louise Bonne de Jersey.....	17	Winter Nelis.....	12

What soil is best suited to the Pear?

Good strong loam, with a clay subsoil, if you have it; and if you have not, then put them on the best soil you have that approaches nearest to this character; always remembering that thorough drainage is essential.

Has the success attending the Culture of Dwarf Pears in Western New York been such as to promise profit if planted largely in orchards?

Mr. Sharp, of Lockport, said a neighbor of his put out 104 dwarf pear trees on about a quarter of an acre. The third year from planting, he sold \$50 worth of fruit. Another neighbor set out an acre of dwarf pears (400). The second year he realized \$69.50 from the fruit. The fourth year he sold \$175 worth; and the fifth year, (1863), he realized over \$500 above all expenses! The varieties were Louise Bonne de Jersey and Duchesse d'Angouleme. Another case was mentioned where \$470 per acre was realized this year from dwarf pears.

Mr. Fisher, of Batavia, did not wish to discourage the raising of dwarf pears, but he thought the statements which are frequently made in regard to the enormous profits were likely to mislead. He had an orchard of dwarf trees five years old, that are in a thriving condition, but as yet he has not realized \$10 per acre profit from them.

Many instances were mentioned where large profits had been realized from dwarf pear orchards. In other cases, owing to the blight of the tree and the cracking of the fruit, the profits are as yet only prospective!

Which are the best varieties of Grapes for Western New York?

Mr. Frost would name Hartford Prolific, Delaware and Concord.

Mr. Moody thought that we should aim to get a grape that was good for the table and good for wine, so that in case the market is overstocked with fruit, at any particular time, we can make it into wine. Diana, he thought, would make good wine. Delaware is a splendid table grape, and he hoped that it would also prove a good wine grape.

Judge Larrowe, of Hammondsport, thought Hartford Prolific, Concord and Delaware could be raised in most sections of Western New York. Does not think much of the Concord. It is said to make good wine; is hardy, and will bear considerable ill-usage, and these are desirable qualities, but it is not of the best quality. Delaware is the best of all grapes for Western New York. It is as hardy as a hickory tree. The fruit is of the highest quality for the table, and he thought would make good wine. Diana was a good grape, but not as hardy or as early as the Delaware.

Being asked as to the profits of raising grapes, Judge Larrowe mentioned an acre of Isabella grapes that produced five tons in 1862. Last year it produced four tons. He had known larger crops, but this is a fair average. The cost of cultivation, picking, &c., is from \$40 to \$50 per acre. The profits are from \$300 to \$400 per acre. He thinks there will be 500 acres of grapes set out in his section this spring!

H. N. Langworthy would name six varieties: Concord, Isabella, Delaware, Hartford Prolific, Rebecca

and Diana. The latter is a little tender, but is a good grape, especially for winter use.

Mr. Baker said Concord has rather a tender skin, and is difficult to market. Creveling is a grape of much promise. He would name Delaware, Creveling, Hartford Prolific and Concord for general cultivation in Western New York. In regard to profit, he would say that he had a vineyard of seven acres, from which he had realized for several years on an average \$2,500.

Dr. Sylvester would name Hartford Prolific, Concord and Delaware. It has been objected to Hartford Prolific that the fruit drops from the bunches, but this is not the case as the vines become older. It is an early grape and can be recommended for general cultivation. Concord is not of first quality, but for ordinary cultivation it gives good satisfaction. Delaware, though a small variety, yields well and the fruit is of the very best quality. It is very hardy, and he thinks it will make good wine, but it has not sufficient tartaric acid for this purpose. He spoke highly of the Oporto for the latter purpose.

PRUNING GRAPES.

J. J. Thomas said last summer he visited the celebrated vineyard of Dr. Underhill, at Croton Point, and learned that formerly they used trellises six feet high, but now they use trellises eleven feet high, and the crop has doubled in yield, and is of better quality. Thought vines needed more room as they become older. He also learned that the fruit from old vines is of better quality than from young vines of the same variety.

Mr. Olmstead said he had planted ten acres of Delaware grapes. He set them twelve feet apart each way. He thought this was much better than eight feet, as a wagon could be driven between the trellises, and it was easier to manure them, &c.

Judge Larrowe thought the vines should not be allowed to grow over four feet high.

J. J. Thomas alluded to a visit he made to Cincinnati where the vines are trained to stakes and pruned in very close. They were a beautiful sight. But on going to Richmond, Ind., which is a considerable distance north of Cincinnati, a friend showed him some Catawbas grown on a trellis, where they were allowed more room, and the fruit was at least double the size as that at Cincinnati.

The subject of manuring grapes was alluded to, and the general opinion seemed so be that land should not be made richer for grapes than for corn.

What are the six most profitable varieties of Winter Apples for market?

Members of the Society were requested to hand in the names of such varieties as they consider best. Fifteen votes were cast. The following six varieties received the highest number of votes, as follows:

Baldwin.....14	Roxbury Russet.....13
Tompkins County King.....14	Golden Russet.....7
Rhode Island Greening.....13	Northern Spy.....6

The following officers were elected for the ensuing year:

President—P. BARRY, Rochester.
Secretary—JAMES VICK, Rochester.
Treasurer—W. P. TOWNSEND, Lockport.

A CORRESPONDENT of the *London Florist* says that soot is a remedy for grub in carrots, parsley, sea-kale, and many other things. He says: "I sow soot pretty thickly on the ground where it is intended to sow carrots just when I turn the ground over for the last time, before sowing, and I turn the soil over as roughly as possible. Then sow soot again, but not as thick as the first time. This I work in with the hoe before sowing the carrot seed, and I have by this plan had for four seasons continuously splendid crops of carrots."

IN Great Britain it is now becoming quite common to see well kept gardens at the stations on the great railway lines—attended to by the employes of the road. The editor of the *London Gardeners' Chronicle* says that in going from Perth to Inverness he was greatly pleased to see the number of neatly kept station-gardens, and adds: "From the neat way in which the flowers were grown and arranged their cultivation was no task work, but evidently a labor of love."

GERANIUMS IN WINTER.—All the plants that are needed for bedding out in the summer should be kept very dry. D. Thompson says that he winters thousands of geraniums on shelves in the vineries, and gives them scarcely any water. That the roots should be kept dry and it is better to allow the leaves to droop a little than to give them too much water. The great object is to preserve vitality and to prevent growth.

MR. DONALD BEATON, one of the editors of the *London Cottage Gardener*, died at his residence in Lurbiton, Kingston-on-Thames, the 31st of October last. He was a practical gardener and his editorials written in a style peculiar to himself, have been very attractive to readers of horticultural literature.

THE *London Florist* has an illustration of a new climber brought from Japan by Mr. Fortune. It is called *Clematis Fortunei*. The flowers are white, very double and six inches across, with a delicious orange blossom fragrance. In England it is quite hardy.

GRAPES IN KANSAS.—A Mr. Barns, of Manhattan, Kansas, an experienced grape-grower, writes us that he is satisfied that Kansas will be one of the best States in the Union for grape culture.

Miscellaneous.

ONE OF THE ADVISERS OF THE KING OF THE GREEKS.—A Paris letter in the *Independence*, speaking of the persons who are to serve as counsellors to the King of the Greeks, says: "Count de Sponneck, the principal one, is a man of distinguished merit, and left a very favorable impression on the diplomatic world in Paris. M. Drouyn de Lhuys speaks of him with the highest praise. He has occupied diplomatic posts at Vienna and at Berlin. He was several years Minister of Finance at Copenhagen, and all the questions on the order of the day are familiar to him. To great coolness he unites extraordinary energy. The following anecdote shows the whole character of the man: He recently embarked at Copenhagen for Hamburg, on his way to Brussels, having with him a favorite dog. During the passage, the animal, while gamboling about on the deck, fell overboard. 'My dog! my dog!' exclaimed the Count, much excited. 'Captain, for mercy's sake, stop!' 'I am very sorry,' replied the Captain, 'but the regulations formally forbid us to stop for animals. Our minutes are counted—I can not stop the vessel.' 'And if it were a man?' said the Count. 'Ah! that would be a different matter.' Scarcely had the words been uttered when the cry of, 'A man overboard!' was heard. The Count had jumped into the sea—dressed as he was. The vessel was immediately stopped, a boat lowered, and the Count and his favorite brought on board."

SIR EMERSON TENNENT has related the fact, which occurred recently, of a cow pounding to death a leopard. The old cow was called Tickery Banda, after a Kandian chieftain, from whom a friend of mine had bought her, and was in charge of an Englishman at Newera Ellia. The extraordinary part of the story is, that the old lady had no horns. But what will not maternal affection do? The leopard got into the shed where Mrs. Tickery Banda and her calf were, expecting to have an easy prey; but he reckoned without his hostess. Mrs. T. B. went at him tooth and nail—or rather head and horny protuberances—pounded him again and again against the walls, jammed him into a jelly, and left him so little life that, next morning, when the master opened the stable, the leopard had scarcely any life left in him, and a shot from a pistol settled him. The old girl's nerves received a terrible shock, however, on this memorable occasion. For some time afterwards she did not know friend from foe; or rather, she assumed every one to be a foe until the contrary was proved. She would rush at her dearest friend, rip and snort, and offer to pound him against an imaginary wall. Time, the great restorer, brought back repose to her overwrought mind, and it is believed that she died at peace with all mankind.

THE word "dun" is said to have originated in this wise: John Dunne, a famous bailiff of London, was so extremely active in his rough business that it became customary, when a man refused to pay his debts, to ask, "Why don't you Dunne him?"

THE BADGES OF THE ARMY.—An army correspondent, writing from the Army of the Potomac, says: "A few words in regard to the badges used in the army may be of interest to the curious. Many wish to know what these red, white or blue patches are for. They distinguish the corps or division to which soldiers belong. The 1st corps is distinguished by a circular badge of flannel; the 2d by a clover leaf; the 3d by a lozenge, or diamond; the 5th by a Maltese cross; the 6th by a common cross; the 11th by a crescent, or new moon, and the 12th by a star. The colors, red, white and blue, designate the first, second and third divisions respectively, in every corps. Corps, divisions and brigades are distinguished in the field by the shape and color of the flags. Metal badges are generally badges of honor."

A FRENCH WRITER has boldly affirmed that, with the exception of woman, there is nothing on earth so agreeable or so necessary to the comfort of man as a dog. It is certain that if man were deprived of the companionship and services of the dog, he would be rendered, in many respects, a helpless being. The dog has died in defense of his master, saved him from drowning, warned him of approaching danger, and has faithfully and gently led him about when deprived of sight. If his master wants amusement in the fields or the woods, the dog is delighted to have an opportunity of procuring it for him. If man finds himself in solitude, his dog will be a faithful companion, and may be, when death comes, the faithful creature will be the last to forsake the grave of his beloved master.

AN EDITOR SOLD.—The editor of an English paper was recently presented with a stone, upon which was carved the following letters. The editor was informed that the stone was taken from an old building, and he was requested to solve the inscription. It read:

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A	In St—

Eminent men were called to consult upon the matter and after an immense amount of time consumed, they were informed that the stone was—"For cattle to rub their tails against!"

A SHORT time since, as a well-known master in a grammar school was censuring a pupil for the dullness of his comprehension, and consenting to instruct him in a sum in practice, he said: "Is not the price of a penny bun always a penny?" when the boy innocently replied, "No, sir, they sell them two for three halfpence when they are stale."

A BLIND BEGGAR recently begged of a Scotch innkeeper. He told a pitiful story. The good wife fed him, but Boniface quietly put half a crown in the poor fellow's path. The cure was complete. The beggar stopped for the coin, miraculously received his sight, and a basting.

FREQUENTERS of concerts who are in the habit of beating time with their feet, are reminded that the Stamp Act has been repealed.



OUR ARTIST gives us this month a very pretty picture of a family of Marmots just going to bed for their winter's sleep. I have no doubt but that the old proverb, "As you make your bed so must you lie," is carefully taught by the mothers to their children. They live way up in the Alps, and when the cold weather comes they begin to feel so sleepy that even the little ones are ready to go to bed, and don't cry when the time comes to be all tucked in nicely for their long night. When the spring opens, and the sun shines again, they are as bright and well as ever. I have no doubt, though, that they make a hearty breakfast on the stores of good things which were laid up the fall before, for they must be pretty hungry. I am afraid that some of the little ones that we see in our picture will not look quite so plump next spring as they do now, but then all the long, warm summer is before them to grow fat in. If I had time I could tell you a long story about one of these little ones who had a great curiosity to know what was going on while the rest were sleeping, and tried to keep herself awake to see; but she found that God knew best what was good for her, and that she only made great trouble and sorrow for herself in trying to have her own way. He had taught her to lie quietly, and had made the rest pleasant for her, but the

world outside was all awake and noisy, and the bustle and the cold nearly killed her. Indeed, she would have died had she not finally curled herself up in the best place she could find, and so got half her sleep. I know you would feel very sorry for her if I could tell you what a hard time she had; but you would agree with me that it would have been much better if she had lain down with the rest and not run around where she knew she ought not to go.

THE PRECIOUS LITTLE PLANT.—Two little girls, Bridget and Walburga, went to the neighboring town, each carrying on her head a heavy basket of fruit to sell for money enough to buy the family dinner. Bridget murmured and fretted all the way, but Walburga only joked and laughed. At last Bridget got out of all patience, and said, vexedly: "How can you go on laughing so? Your basket is as heavy as mine, and you are not one bit stronger. I don't understand it!" "Oh!" said Walburga, "it is easy to understand. I have a certain little plant that I put on the top of my load, and it makes it so light I hardly feel it. Why don't you do so too?"

"Indeed!" said Bridget, "it must be a very precious little plant! I wish I could lighten my load with it! Where does it grow? Tell me. What do you call it?"

"It grows," replied Walburga, "wherever you plant it and give it a chance to take root, and there's no knowing the relief it gives. Its name is PATIENCE."—*Herder.*

Ladies' Department.

HEALTH ON FARMERS' FAMILIES.

In the *Agricultural Report* for 1862, there is an article by Dr. W. W. Hall, on "The Health of Farmers' Families," in which he gives some startling statistics as to the prevalence of insanity and ill-health among our agricultural community. One cause of this is, he thinks, eating improperly, too fast, too much, and too often. Another is the want of mental cultivation; that the farm work is allowed to be routine only, with little mental stimulus for a sound body or a sound mind.

The second part of Dr. Hall's article has some plain talk in it which we hope will *not* be of use to our readers, but we make some extracts from it to show how the lot of a farmer's wife is viewed by a physician. He says:

"It is perhaps safe to say, that on three farms out of four the wife works harder, endures more than any other on the place; more than the husband, more than the 'farm-hand,' more than the 'hired help' of the kitchen. Many a farmer speaks to his wife habitually in terms more imperious, impatient, and petulant than he would use to the scullion of the kitchen or to his hired man."

And this in the presence of her children and servants, which increases her hardships as it renders her authority less, as the "man of the house" is more emphatically its head in domestic matters, on a farm than any where else.

Another unkindness is in the neglect of attending to little things about the house. Letting a broken pane of glass remain unreplaced and allowing the roof to leak for months together so that a bucket must be placed or the floor washed after a rain; or giving only green wood for cooking, and instead of having convenient pumps, make a walk to a spring a dozen times a day a necessity. With all this neglect on his part, the farmer expects his wife to be perfect in her department, and visits any failure with reproaches both loud and deep. The care of a sick child at night must not delay the breakfast in the morning, or the breaking down of the butcher's cart, or an accident to some of the cooking utensils which he promised to attend to, but has forgotten; or a slow servant girl, or none at all—form no excuse for a want of punctuality in dinner, and do not spare the wife one word of reproach for her neglect. Dr. Hall says further that "it is incalculably better to have the potatoes and other vegetables gathered and placed in the cellar or in an outhouse near by in the early fall, so that the cook may get at them under cover, than to put it off week after week, until near Christmas, compelling the wife and servants, once or twice every day, to leave a heated kitchen, and most likely with thin shoes, go to the garden with a tin pan and a hoe, to dig them out of the wet ground and bring them home in slosh or rain." And fourthly, that "no farmer's wife who is a mother ought to be allowed to do the washing of the family; it is perilous to any woman who has not a vigorous constitution. The farmer, if too poor to afford help for that purpose, had better exchange a day's work himself."

In addition to these suggestions for the physical health of the farmer's wife, Dr. Hall makes some with regard to other things which men are disposed to regard even more lightly. He urges farmers to visit with their wives not after a long urging on the wife's part, and a grumbling on that of the husband, but let him leave his work cheerfully, dress himself up and take an afternoon now and then for enjoyment and relaxation.

All women, he says, are naturally neat and tidy—are inclined to make the house and the surroundings "nice, while in men the original barbarism crops out constantly, and when a woman is not allowed to cultivate this taste, but is always compelled to see things soiled and slovenly, she really suffers and her character will inevitably deteriorate—she will lose her temper and her good looks."

"What adds to the better appearance of the person elevates; what adds to the better appearance of a farm increases its value and the respectability of the occupant; so that it is always a good investment, morally and pecuniarily, for a farmer to supply his wife generously and cheerfully, according to his ability, with the means of making her family and home neat, tasteful, and tidy. A bunch of flowers or a shilling ribbon for the dress, or a few pennies' worth of lime or a dollar's worth of paint for the house, may be so used as to give an impression of life, of cheerfulness, and of thrift about a home altogether beyond the value of the means employed for the purpose."

One suggestion more and we leave these considerations to our readers: if they know of any of their neighbors who come under our author's condemnation and they can, send them this copy of the *Farmer*

"Many a farmer's wife is literally worked to death in an inadvertent manner from want of reflection or consideration on the part of her husband. None can understand better than he, in plowing, or sowing, or harvest time, that if a horse gets sick, or runs away, or is stolen, another must be procured that very day or the work will inevitably go behindhand. He does not carry the same practical sense into the kitchen when the hired help leaves without warning or becomes disabled, although he knows as well as any man can know that 'the hands' will expect their meals with the same regularity, with the same promptness, and with the same proper mode of preparation; but, instead of procuring other 'help' on the instant, he allows himself to be persuaded, if the 'help' is sick, she will get well in a day or two, or in a week at furthest, and it is hardly worth while to get another for so short a time. If the 'help' has taken 'French leave' his mind fixes on the fact that it is a very busy time, and neither he nor a single hand can be spared, or that, in the course of a week, some one will have to go to town for some other purpose, and both these matters can be attended to at the same time. Meanwhile the wife is expected not only to attend to her ordinary duties as usual, but somehow or other to spare the time to do all that the cook or washerwoman was accustomed to, that is, to do the full work of two persons, each one of whom had already quite as much labor to perform as she could possibly attend to. The wife attempts it. By hereafter litches all goes on well. The farmer perceives no jar, no hitch in the working of the machinery, and, because no complaint is uttered, thinks that everything is going on without an effort. Meanwhile time passes, and (infinite shame on some of them) they begin to calculate how much has been saved from servants' wages, and how much less food has been eaten, and because still no complaint is made, the resolution quietly forms in the mind to do nothing until she does complain; but, before that takes place, she falls a victim to her over-exertions, in having laid the foundation for weeks and months of illness, if not of a premature decline and death."



Cash Prizes—Cash Prizes—Cash Prizes!

We offer CASH PRIZES to the amount of *one hundred and thirty-seven dollars* to those who get up the eight highest lists of subscribers to the *Genesee Farmer* for 1864. The time for competing for these liberal Cash Prizes expires on the 15th of March. There is yet plenty of time to compete for them. There is scarcely a single reader of the *Genesee Farmer* who could not, by a little personal effort among his friends and neighbors at this time, soon get up a club large enough to secure one of these Cash Prizes.

There seems to be a reluctance on the part of our agents and friends to compete for these prizes. Each one seems to think it will be useless for *him* to compete—that he stands no chance of taking a Prize. The result is that few compete for these Prizes, and they are taken by very small clubs. We do not know of more than three persons who are at present competing for the Cash Prizes. The majority of our agents seem to prefer taking the Specific Premiums. But it would be well for them to wait and see if they do not take a Cash Prize before sending for the books, &c., which we offer for a definite number of subscribers. If they do not take a Cash Prize, they can still have the Specific Prize to which they are entitled.

Form Clubs!—Form Clubs!—Form Clubs!

To clubs of six and upwards, we send the *Genesee Farmer* for fifty cents a year, (which barely pays for the white paper and the cost of printing, setting up type, &c.) We find from experience that the circulation of the paper depends more on the efficiency of our friends who consent to act as agents than on all other things put together, and we would again ask every one who wishes to encourage the circulation of a cheap and reliable agricultural and horticultural journal, to act as agent for the *Genesee Farmer*. Let a club be formed at every post office at which a paper is now taken. If you, kind reader, can not attend to this matter, will you oblige us by inducing some young man to act as agent for us. Tell him who would be likely to subscribe, and aid him all you can. We have never before offered such liberal premiums to all who are disposed to increase the circulation of the *Genesee Farmer*. Show bills and subscription lists are sent free to all who desire them.

Miner's Domestic Poultry Book.

This work containing two-hundred and fifty-four pages and illustrations, with over one hundred engravings of the different varieties of fowls, geese, ducks, turkeys, &c., &c., is sent, *prepaid*, by return mail, to any person who gets up a club of eight subscribers to the *Genesee Farmer* for 1864, at our lowest terms of 50 cents a year!

Webster's Unabridged Dictionary.

It will be seen by reference to the last page of this number that we add to our list of premiums this month a copy of Webster's Unabridged Dictionary, new pictorial edition. Any one sending us forty subscribers to the *Genesee Farmer* for 1864, at our lowest club rates of 50 cents each, will receive a copy of this splendid work, free of all charge. We need say nothing in regard to the importance of a good dictionary to every young man, and it is equally unnecessary to commend this new edition of Webster. It contains 2,500 illustrations, and the definitions of words are confessedly unsurpassed.

The Postage on the Rural Annual.

We are informed that some postmasters charge postage on the *Rural Annual*. This is an *imposition*. Not a copy of the work is sent out that is not *prepaid in full*. The *Annual*, weighing only 4 oz., is allowed by the new postage law to go for two cents. This is prepaid by us by stamps, in all cases. It formerly weighed but three ounces and was allowed to go for one cent. Our friends should see to it that they are not charged postage on the *Rural Annual*.

Choice Flower and Vegetable Seeds.

A DOLLAR package of choice Flower and Vegetable Seeds will be sent to any one who gets up a club of sixteen subscribers to the *Genesee Farmer* for 1864. Also a free copy of the *Farmer and Rural Annual* for 1864. The seeds will be ready in a few weeks, and will be sent *prepaid* by mail. Our friends who wish these seeds should mention it at the time they send in their clubs.

The Manual of Agriculture.

THIS new work by Emerson & Flint of Massachusetts, is one which should be read and studied by every young farmer in the United States. It will be seen by reference to our premium list, on the last page of this number, that we send it, *prepaid*, by return mail, to any one who gets up a club of twelve subscribers to the *Genesee Farmer*, at 50 cents a year.

The Rural Annual for 1864.

THE present number of the *Rural Annual and Horticultural Directory* is said to be the best yet published. We want every reader of the *Genesee Farmer* to have a copy of this number of the *Rural Annual*. We hope all our agents will club it with the *Farmer*. To clubs, with the *Farmer*, it is sent, *prepaid*, for 15 cents.

Cook's Sugar Evaporator.

THOSE of our readers who are interested in the manufacture of maple sugar will do well to send to Messrs. Blymyers, Bates & Day, of Mansfield, Ohio, for one of their circulars describing Cook's Sugar Evaporator. It is decidedly the most simple, economical and efficient evaporator we are acquainted with. Several correspondents of the *Genesee Farmer* who have used them write us that they give the highest satisfaction.

Notes on the Weather from October 15th, 1863, to January 16th, 1864.—Results.

As the power of the sun is the great mover of the changes in the atmosphere, its revolution and diffusion of caloric must approximate to uniformity. Hence the seasons of summer and winter, as well as day and night, seed-time and harvest, follow the great natural laws of the Creator. The uniformity amidst the variety is the substance of the results given by the meteorologist.

The heat of the first half of October was only half a degree below the general average, and of the last half was one degree above that mean; so that the mean of the month was 48.5°—about half a degree above the average. The warmest in the last half was 78° on the 18th, the hottest day, or 65.3°. The coldest was on the 20th, being 23°, but the 28th was the coldest day, 33.7°. A great frost on the 29th. The water fallen in the month measured 2.72 inches—a very moderate quantity; and the streams are rather low and rain expected.

The autumnal scenery has been as splendid as usual, and the variegated coloring appeared before any frost, as commonly does. The latter harvest is abundant, and the farmer gets adequate prices. The exportation of apples East and South is vast, and more than 130,000 barrels passed through our Weigh-lock in the last week. October has been a pleasant month.

The next day after the snow-storm at St. Louis, the emperature there was 24° in the morning, and rose not above cypher during that day. The storm moved eastward across Illinois, and considerable snow fell in Indiana. The storm was less in Ohio, and in this vicinity only rain fell—on the 22d a little, but early on the 23d considerable—0.72 inch. The cold periods in August, September and October were much colder west and east of the Mississippi than west and east of Lake Erie, and their movement was from west to east, slowly.

November gave us five warm days for a beginning, then a week of cool weather followed by warmer to the end of the first half. The average was 42.7°, or 1.5° above the general mean. The hottest noon was the 14th, 63°, which was the hottest day, being 54°. Weather variable as November is, giving us rain, hail and snow on the 6th. An inch of snow fell on the 9th and 10th, soon to be melted; on the 14th and 15th fell considerable rain, so that the water fallen in this half was 1.63 inches. The Genessee rose some by the earlier rains, and more by that of the 15th and the day before, though the earth drank in the greater portion. Of course the mud has been *sufficient*, though it was frozen on the morning of the 11th from the low temperature of the 10th.

Apples have continued in demand, and there have been exported North and East from Monroe county very nearly 500,000 barrels, and from Orleans county, west of this, 278,000 barrels. Bought at an average of \$1.50, the farm has proved highly remunerative.

Of the last half of November the average was 37.8°, or 3.4° above the general average, and as the first half was 1.5° above also, the mean heat of the month was 40.3°, or 2.4° above the general average. The coldest morning was 20° on the 30th, the coldest noon 26° on the 30th, which was the coldest day, 22°. The hottest noon

of the last half was 56° on the 19th, and morning 47° on the 20th, and hottest day 49.7°, the 19th, and hottest evening on the same day, 54°. The warmth and pleasantness of the month has been called uncommon. This is true; but the average of November for 1849 was 46.7°, and very fine; of 1846 was 42.7°, and of 1850 was 42.2°. The rain of the month was 2.37 inches. But the springs are still low.

December opened cold, as November had closed cold. But the weather soon became warm, and the average of the first half was 32.30°, or 1.4° above the general average. The noon of the 4th was 53°, and of the 13th was 50°. The morning of the 12th was the coldest, 12°, and of the 7th 18°. The weather has been pretty variable, yet called pleasant, with very little snow, and the canal unfrozen until the 12th, and again free from ice on the 14th. The water of the month was 0.92 inch—a very small quantity for the half month. The Genessee rose some.

The barometer has varied much and with rapidity. Since June 1st the range has been between 29 and 30 inches to December. In this half month the range has been between 30.06 inches on the 6th and 7th, and 28.68 inches on the 14th, when a heavy gale began in the afternoon and swept furiously over us for more than a day, followed by cold. This wind and change began at St. Louis a day earlier, and passed across the country to the Atlantic. The chief rain was on the 13th and 14th, and on the 15th the barometer stood at 29.70 inches, having risen in a day more than one inch. This storm extended over the country, with high wind and rain.

As the mean of the first half of December was 32.3°, or 1.4° above the general average, and the mean of the last half, 25.4°, was only just below the average, the mean of the month was 28.7°, or half a degree above the general mean. The weather had been quite fine, and the month closed in moderate weather and with fine wheeling.

The coldest was 7° on the 25th, and the warmest 49° on the 29th. The canal has continued fast frozen from the 16th.

The average temperature of 1863 was 47.3°, and for twenty-seven years is 47°. The annual means range between 44.7° in 1843, and 48.3° in 1853—a range of only 3.6°. The greatest cold in twenty-seven years was 20° below zero, February 6th, 1856; and in January, 1857, the maximum cold was 16° below, though it is rarely below 9° below cypher. The greatest heat was 98° or 96°. The range of heat, then, in twenty-seven years is 116° to 118°.

For the barometer the average of twenty-six years is 29.54 inches, the annual range of means being between 29.44 and 29.63 inches. The range in all these years has been from 28.24 inches and 30.47 inches—a range of 2.23 inches. The great depressions are attended with high winds or tornadoes, with rain or snow often, and sometimes in great quantities.

The water fallen in the year is 30.09 inches, and the average for twenty-seven years is 32.25 inches, so that we have received about one-fifteenth less than the average.

The year 1863 has, in this section, and generally over

the country, given us much fine weather, productive seasons, abundant harvests, and very general health.

The first half of January, 1864, has been cold and given us much piercing wind. The temperature began at 32° in the morning, fell to 16° at 2 P. M., and to 1° below zero at 9 P. M., with some snow in the afternoon and evening, driven with fury from the west. Next morning the thermometer stood at 4° below, and rose to 4° above at noon. The first four days were cold, and the next eight little warmer. The average of this half month is 18.4°, while the general average is 26.2°; so that the half is 7.8° below the average—a great difference. This cold period began west of the Mississippi and Lake Superior, and extended with great severity northward and eastward, but was a dreadful storm at the west, beginning at St. Louis and north into Minnesota on the 31st of December, and giving a temperature from 20° to 40° below zero over a great extent—at Fort Snelling, in Minnesota, being 50° below; St. Paul 38° below; Madison, Wis., 39° below; Chicago 22° below, and in the suburbs 28° below; St. Louis 19° to 24° below, while 10° below had been the coldest known; Memphis 10° below, and Cairo 16° below; Louisville, Ky, 9½° below; Indianapolis, 20° below; Buffalo 9° below; Rochester, 4° below; Oswego 8° below; and all these on the 1st and 2d of January. On this last day at Boston 3° to 10° above, and at New York 10°.

Loss of Stock from the Storm at the West.

THE late severe storm and cold weather at the West proved very destructive and injurious to domestic animals of all kinds, but more especially to sheep. The *Prairie Farmer* says:

In Sagamon county we were told that Colonel F. Hopkin lost 439 head out of a flock of between 800 and 900—and it was at one time rumored that his total loss was nearly two thousand head; but this was thought to be an exaggeration.

James F. Hickman, of Wolf Creek, was reported to have lost 111 out of 1000, and Joseph McCoy, of the same locality, about 200 head. Many of the wool-growers there have suffered a loss of from 50 to 200 head of sheep.

The total loss in the West of cattle, sheep, swine and poultry must be immense, and the suffering of the poor brutes beyond all computation.

The Editor of the *Farmer*, in commenting on the above, well remarks:

"The benefit of sheds, stables, groves and wind-breaks, so long and so earnestly urged by our agricultural periodicals, must now come home to all dwellers upon the prairies. In Central Illinois, where winters are usually less severe than here at the north, the loss in sheep has been heavy."

A CORRESPONDENT of the *Kansas Farmer*, a new paper started recently started at Topeka, Kansas, says: "In 1856 I subscribed for the *Genesee Farmer*, published at Rochester, N. Y., by Joseph Harris, Esq., for fifty cents in clubs of six. I have every number since then. Last year I made over one hundred dollars (clear) that I would not have done if there had been no Joseph Harris or *Genesee Farmer*, or some other agricultural work that I would have obtained the same information from."

Inquiries and Answers.

"SHALL I BUY A FARM IN THE STATES?" (A Canada West Farmer.)—We never like to assume the responsibility of advising anyone to leave their native land and settle in another country. But in your case the change from Canada West to Western New York, so far as climate, habits and customs are concerned, will be hardly perceptible. There is this advantage in coming to the States at the present time: one dollar of your money is worth over \$1.50 of ours. Land is little if any higher now than it was before the war. A farm that you could have bought three years ago for \$5000, can be bought for the same sum now; but *your* \$5000, when brought here, is worth \$7,500—so that you can get the same farm now \$2,500 *cheaper* than you could three years ago. It is not probable that this state of things will last much longer. Land is already beginning to advance, and if you design settling in the States the sooner you come the better. If you come, call and see us. We know of several farms that can be purchased to advantage.

I HAVE got some oilcake for calves, and the stuff is about as hard as bricks. I do not know how to feed it to them. If you would inform me, you will oblige.—GEORGE HAIGHT, *Plymouth, Wis.*

In England oilcake is usually purchased in the form of cakes, which are frequently, as you say, nearly as hard as bricks. The farmers have machines for crushing it. In this country it is usually sold in the form of meal. As you are not probably using a large quantity, you might break it with a hammar. In feeding it to young calves the best way is to cook it. Let it soak for twenty-four or thirty-six hours before cooking it.

I WOULD like to inquire through the columns of the *Genesee Farmer* what are the hardiest kinds of apple trees for this Northwestern country—it is too cold for many kinds.—J. D. K., *New Richmond, Wis.*

We think it would be safe for you to plant Red Astrachan, Duchess of Oldenburg, Early Harvest, Fameuse, Golden Russet, Roxbury Russet, Pomme Grise, Golden Sweeting, Gravenstein, Hawthornden, Keswick Codlin, Northern Spy, Rauld's Jannet, St. Lawrence, Tolman Sweeting.

A CANADIAN.—You will find no difficulty in getting work on a farm in this neighborhood. Business of all kinds never was more active than at present, and farmers are apprehensive that they will not be able to find men enough to carry on their operations in the spring. You can not do better than to come at once. As you are not a citizen of this country you need have no fears of the draft.

WILL some of your readers inform me what will cure a mare that has got a swelled hind leg from the hoof up to the hock? It has received no injury, neither does it discharge any matter. The swelling falls some while travelling, but never disappears. It is a likely young mare, four years old. It is some four months since the swelling began.—W. T., *North Hamden, N. Y.*

CAN some one of the many readers of the *Farmer* give us some information as to who has got the best ditching plow, and where it can be had; also, what it will cost for stone draining instead of tile?—A SUBSCRIBER, *Hewersburg, Pa.*

A SUBSCRIBER, Dawn Mills, Canada West.—We can send you the *Horse and his Diseases* by mail for one dollar.

A LEARNER.—The "Bee man" you saw at the State Fair is K. P. Kiddler, of Burlington, Vt. We believe his hives give good satisfaction. You can obtain further information by addressing him as above.

E. D. WRIGHT, Pierpont, Ohio.—You will find a treatise on the culture of tobacco in the *Rural Annual* for 1863. You will also find several articles on the same subject in the *Genesee Farmer* for 1862-3.

WHAT will cure the "snifters" in sheep? Could you give us a good design for a convenient spring-house?

How can we exterminate lice on sheep?—W. A. B., North Hope, Pa.

The Markets.

OFFICE OF THE GENESSEE FARMER. }
January 29, 1864. }

GRAIN of all kinds has again advanced. Wheat is now 10 cents a bushel higher than it was at this time last year; Rye is full 30 cents higher; Oats are 20 cents higher, and Corn full 35 cents a bushel higher than at this time last year—and prices were then higher than they had been for several years. These remarks are based on the current rates in New York. At the West the advance since last year has been still greater. Thus, in Chicago, at this time last year, Corn sold at 47 cents $\frac{3}{4}$ bushel, while it now brings 96 cents. Barley is not quite as high now as it was at this time last year. But it will perhaps be interesting to put in tabular form the prices of some of the leading agricultural products in New York at the present time and at the same time a year ago:

	1863.	1864.
White Wheat.....	\$1 60@1 78	\$1 70@1 90
Red Wheat.....	1 35@1 60	1 52@1 73
Mixed Western Corn.....	85@ 88	1 25@1 26
Rye.....	93@1 03	1 27@1 35
Barley.....	1 40@1 55	1 25@1 50
Oats.....	78@ 78	90@ 93
Beans, medium.....	2 25@2 50	2 50@2 90
Butter, State.....	20@ 30	27@ 33
Cheese.....	10@ 14	13@ 16 $\frac{1}{2}$
Eggs, fresh, $\frac{3}{4}$ doz.....	20@ —	@ 33
Turkeys.....	9@ 13	12@ 14 $\frac{1}{2}$
Chickens.....	8@ 11	9@ 12
Ducks.....	11@ 15	10@ 13
Geese.....	6@ 10	7@ 10
Potatoes.....	1 50@2 50	1 63@2 50
Apples.....	1 75@2 00	2 00@3 00
Clover Seed, $\frac{3}{4}$ lb.....	11@ 11 $\frac{1}{2}$	13@ 13 $\frac{1}{2}$
Timothy Seed.....	2 25@ 3 00	3 00@3 25
Flax Seed.....	2 80@3 00	3 25@3 35
Beef.....	8@ 10	10@ 13 $\frac{1}{2}$
Sheep, live weight.....	@ 12	8 $\frac{1}{2}$
Hogs, dead weight.....	6@ 7	9@ 10
Hops.....	17@ 25	23@ 33
Wool.....	55@ 66	72@ 85
Hay.....	18 00@22 00	31 00@32

Everything is higher than it was at this time last year with the exception of Barley, Ducks and Sheep. The falling off in the price of Sheep is quite remarkable. The highest price obtained last week in New York for extra fine Sheep was 8 $\frac{1}{2}$ c. $\frac{3}{4}$ lb, live weight, while at this time last year a lot of fat Sheep were sold at 12c. $\frac{3}{4}$ lb, live weight. As Wool is higher now than it was then, and Beef, Poultry, Pork, &c., also higher, it is difficult to account for this falling off in the price of Sheep. It is extremely hazardous to offer any opinion in regard to future prices. Everything depends on the price of Gold and the success of our armies. Gold is now 1.57; this time last year it was 1.50. By the first of March it was 1.70, and wheat advanced 25 cents a bushel!

Sheep last year were lower the first of March than the first of February, and the same is true of Beef Cattle. Considering the price of Wool, Sheep are comparatively low, and it is exceedingly probable that they will advance materially in a few weeks.

Special Notices.

Annual Meeting of the New York State Agricultural Society will be held at the Capitol in Albany on WEDNESDAY, February 10th, 1864, at 12 o'clock. It is earnestly desired that there should be a full representation of the County Societies, as well as farmers generally.

B. P. JOHNSON, Secretary.

January 1, 1864.

[From the Montreal Gazette.]

Coe's Superphosphate of Lime.—Mr. COE has received the following letter from Mr. MATTHEWS, a gentleman whose testimony may be taken as conclusive of the value of the excellent fertilizer which Mr. COE has introduced to the attention of the Agriculturists of the Province:

"MONTREAL, Nov. 3d, 1863.—Mr. COE.—Dear Sir: I purchased from you last spring half a ton of your Superphosphate of Lime. I used it on Indian Corn, Mangels, Turnips, Carrots and Pumpkins, and at the same time I used a very powerful home-made manure on similar roots, corn, &c. The result was, those manured with the home-made fertilizer produced very fine crops; but those manured with your superphosphate far surpassed them in weight, color and productiveness generally. I intend for the future to use it liberally.

"I am, dear sir, yours truly,

"G. MATTHEWS."

Bound Volumes of the Genesee Farmer.—We have frequent inquiries as to how many back numbers of the GENESSEE FARMER we can furnish. In reply we would say, that we have a few copies of the years 1845, '46, '47, '48, '52, '53, '55, '56, '57, '58, '59, '60, '61, '62 and '63. We shall sell them as long as they last at one dollar each, or the whole fifteen volumes for \$14.00. They are handsomely bound, with a complete index to each volume.

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ADVERTISEMENTS.

A FEW short advertisements of interest to farmers—and only such—will be inserted in the GENESSEE FARMER at twenty-five cents a line, or \$2.50 per square, or \$25 per column, each insertion, payable in advance.

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SALESMAN WANTED—Address Franklin Sewing Machine Co., Boston Mass. feb3t

FARM WANTED.—50 to 200 acres in East, West or Southern New York. Particulars as to soil, location, improvements, price, terms, &c., addressed to Box 544, Rochester, N. Y., may hear of a purchaser. feb1t*

TO AGENTS AND DEALERS IN TREES AND TO CLUBS.—My Wholesale Catalogue for 1864 is now ready. Carriage of packages paid to Boston, Newport and New York. B. M. WATSON, feb2t Old Colony Nurseries, Plymouth, Mass.

FRESH GARDEN SEEDS FOR 1854.—Gardeners, Market Gardeners and others, purchasing Seeds in small or large quantities, by sending a list of what they require, and the quantity, will receive the same by return of mail, with the lowest possible prices annexed, for cash. B. M. WATSON, feb2t Old Colony Nurseries, Plymouth, Mass.

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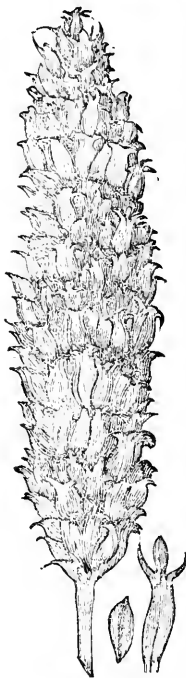
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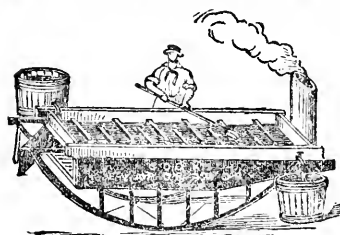
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1. To every person sending us *six* subscribers, at 50 cents each, (\$3.00) we will send, prepaid by return mail, a copy of the *Rural Annual* for 1864.

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3. To every person sending us *ten* subscribers at our lowest club rates of 50 cents each (\$5.00) we will send a copy of *Rodgers' Scientific Agriculture*, or, if preferred, a copy of the *Gene-see Farmer* for 1864, and also a copy of the *Rural Annual* for 1864, prepaid by mail.

4. To every person sending us *twelve* subscribers at 50 cents each (\$6.00) we will send prepaid by mail a copy of Emerson & Flint's new book, *The Manual of Agriculture*.

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In sending money, if of large amount, it is better to procure a draft on New York, made payable to our order; but small sums may be sent in bills. If the papers do not come in a few days, write again, so that, if the letter has miscarried, the matter may be investigated. On these conditions money may be sent at our risk. Address

JOSEPH HARRIS,

Publisher and Proprietor of the *Gene-see Farmer*,
January 1, 1864. Rochester, N. Y.

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HORTICULTURAL DEPARTMENT.

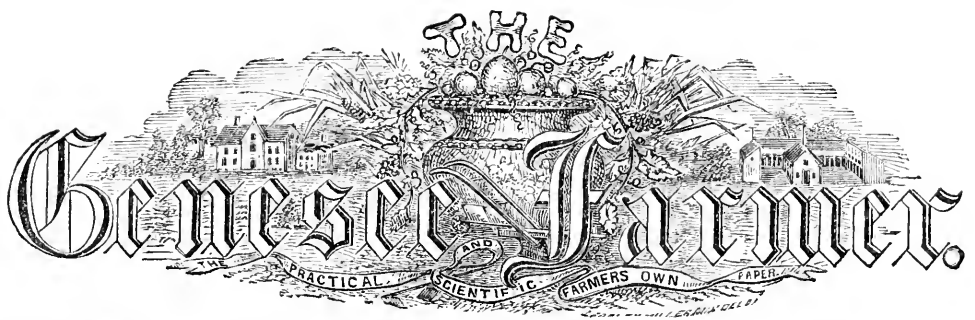
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Jan 8t WILLIAM PARRY, Chiuaminson, N. J.



WALKS, AND TALKS ON THE FARM.—NO. 3.

How much there is to be done on a farm! What a multitude of little things to be attended to! It is almost impossible not to *worry* at times when you think of the labors of the coming spring and of the hourly recurrent duties of the day: and it is worry and not work that wears on the constitution.

Order, system, energy and promptness are the great requisites to success in farming—as in any other business. I admire the man that is never in a hurry—that has learned the great art of “making haste slowly.” Solomon says: “He that hasteth with his feet sinneth.” But on the other hand he lashes without mercy the sluggard and the lazy. Our homely Yankee adage, “Be sure your right, then go a-head,” expresses the true idea. Lay your plans with thoughtful deliberation, and then execute them with energy and promptness. Think first, and work afterwards with all your might.

I know a good business man who writes down on a slate every evening the work to be done on the following day. Some such plan would be good on a farm, though I would not confine it to the immediate work to be done, but would put down every thing that I could think of that will need attending to for a month or so to come. Let us jot down a few things now, just as we can think of them:

“Clean, oil and repair harness.

“Examine plows, harrows, cultivators and other implements, and have them put in order.

“Prune apple trees.

“Send to the mill for five tons of plaster.

“Draw bone-dust from the city.

“Have the hinge on the front gate mended.

“Get a new reach for the wagon.

“Fix up the fences.

“Draw fire-wood and saw it with the machine.”

Is that all? It does not seem that it should worry a man very much!

But there is the stock to be attended to, with their daily and hourly wants. Make an estimate of how much fodder you have on hand, and be careful that you do not run short. Feed regularly,

and no more than the cattle and sheep will eat up clean. John is inclined to waste the straw. I can not persuade him that it is half as valuable as most farmers regard it. The corn-stalks are nearly all used up, and I do not like the idea of feeding out any more hay than I can help. But cows at this time of year must have a little. It will not do to let them get poor.

When I told John that I had bought ten tons of bone-dust, and that I was going to put it on the fifteen-acre lot where the corn was last year and sow it to barley, he shrugged his shoulders and remarked “You know best;” which I interpreted to mean that he thought I did not know anything. He thought leached ashes were worth more than bone-dust, superphosphate or guano, and he had the fullest confidence in barn-yard manure.

But if you can not get the ashes and barn-yard manure, there can be no harm in resorting to the manufacturers of artificial fertilizers. They will pay this year if ever. There can be little doubt but that we shall have high prices next fall, and the only reason why we have not hitherto used as much guano, superphosphate, and other artificial manures, as the English farmers, is that we did not get enough for the produce to make it pay. But we are now getting higher prices than the English farmers, and we can afford to take extra pains and incur additional expense to get an extra crop.

If you can be sure of getting \$1.25 per bushel for barley, it will pay to use superphosphate and guano for this crop. From 200 to 300 pounds per acre will probably give you 10 or 15 bushels per acre extra, and your land will be in better condition for the next crop.

There are few of us who appreciate the full advantage of getting a good crop. Like the mind, land will be occupied with something. An idle brain is the Devil's workshop, and half-cultivated land is soon filled with weeds. Raise a good smothering crop of grain or peas, and you will feel the advantage of it for years. The crop itself pays a handsome profit, the land is cleaner, and the straw will

enable you to keep more stock and make more manure.

In the January number of the *Farmer* I alluded to the assertion that "every bushel of wood ashes applied to the corn crop is worth one dollar," and gave an experiment made by myself, where 400 pounds of unleached hard-wood ashes applied to an acre of corn only increased the yield *half a bushel* over the unmanured acre adjoining. Now there may be instances where ashes have greatly benefited the corn crop. I never doubted the fact. But to assert that ashes are *always* beneficial, and that they are worth a dollar a bushel as manure, is to assert what I believe is not true.

But I would not be understood as recommending farmers to sell their ashes. In most cases they are worth more as manure than the soap-makers will pay for them.

A day or two after the January number of the *Farmer* was out, an old New England friend of mine, now in his ninetieth year, remarked:

"Your paper is quite interesting this month."

Knowing that, like all other sensible men, he was quite chary of compliments, I thought there was something more to follow.

"I see," he continued, after a few minutes, "you do not think much of ashes as a manure."

"I have made several experiments with them," I remarked, "and seldom found any benefit from them."

Now if any one thinks this is a conclusive argument, he is greatly mistaken. Farmers are great sticklers for facts; but if any one, who is rather given to making experiments, mentions a fact that runs counter to their general experience, they treat it with no more respect than a regular physician would the opinion of a quack doctor.

So my worthy friend still adhered to his old opinion—and I do not blame him—that ashes were an excellent manure. He had seen them used with good results for three-quarters of a century—and is one experiment to upset the experience of a life-time?

Other gentlemen have spoken and written to me on the same subject, all asserting that ashes are an excellent manure. Mr. Bela Dunbar, of North Chili, writes that he has for many years used ashes on his corn, and always found them beneficial. He has put ashes on two rows and then skipped two, and so on alternately through the field, and always discovered a marked difference in favor of the ashed corn, both as regards color, growth and yield at harvest. He says he would not sell ashes for one dollar a bushel, as he thinks they are worth more than that to apply to the land.

In 1855, he says, he put a good coat of compost manure on his garden, and could perceive very little

benefit from it. The following spring he put on a dressing of ashes, and the results were wonderful. Such big beets, carrots, melons, squashes, &c., had rarely been seen before!

My opinion in regard to ashes is this: The one principal thing that we need to make our land rich is *ammonia*. To obtain this we have to make or purchase manures. Now there is no way of increasing the ammonia in our barn-yard manure that does not, at the same time, increase the potash, phosphates and other mineral elements of plants in *greater* proportion than the increase of ammonia. If, therefore, we supply our soils with the ammonia necessary to produce maximum crops, we at the same time furnish all the potash and other mineral elements that are required. In fact, we furnish *more* mineral elements than the crop requires, and there can be no doubt that on all farms where a liberal system of manuring is adopted, our soils gradually become richer in available potash and other mineral elements of plants.

I would not sell a bushel of ashes from the farm. I think they will pay to use as manure, but that they are, as a general rule, worth one dollar per bushel I can not believe. I have seen potash used to a considerable extent as a manure (by way of experiment,) but with the exception of beans and clover I have rarely seen any marked effect produced by its application.

"You think ashes are good for beans?"

In Mr. Lawes' experiments potash, in connection with other manures, proved useful. But the English horse-bean is a very different plant from the beans grown in this country. I see no reason to doubt, however, that ashes would be a useful manure for beans. At all events I mean to try them the coming season.

I think of planting beans in the orchard. It has been in grass for four years, and I suppose the trees would be benefited by breaking it up and planting some crop that will be cultivated through the summer. I was speaking to one of our most experienced fruit-growers the other day, and he said he had a young orchard that had been in grass for two or three years and the trees were as thrifty as he desired, and in such a case he thought it better to let it lie in grass.

There seems to be quite a diversity of opinions in regard to the advantages of cultivating an orchard. Some contend that if it is seeded down with grass and the land is liberally top-dressed with manure, the trees will do better than if the land is plowed and cultivated.

One of our nurserymen advised me to-day to set out a large orchard of apple trees in the spring. I

told him that I thought it was a poor time, as the high price of apples the past season, and the large profits realized in this section from good orchards, would induce farmers to plant extensively. But he says such is not the case, and, as his business gives him a good opportunity to ascertain the facts, his opinion is entitled to consideration.

I know a farmer in this section who sold 11,000 barrels of apples, principally Baldwins, the past season. Having such a large quantity he would doubtless get the highest price for them, and I presume he netted at least \$15,000 from his orchard.

The figures have a very pleasant look, but how much there is to be done before you can hope for such results! The land needs thorough preparation. The trees must be set out, and cultivated and pruned with care, and you must wait six or eight years before realizing any returns for your labor. But so it is with every good thing. You must work and wait. In the end, however, you are pretty sure of your reward.

Beef cattle have advanced nearly a cent a pound this week in New York. The high price of grain is beginning to have its effect on the meat market. I was at Chicago last week, and was told that corn had been sold in Central Illinois at one dollar a bushel. No wonder that the farmers of the West have been sending their cattle to market by thousands and tens of thousands.

Prices of nearly all kinds of farm produce, except wheat, are as high in the West as with us. The Government advertised in Chicago for 2,000 bushels of beans. Bids were sent in amounting to 12,000 bushels, at prices ranging from \$2.50 to \$3.00, and the Government *accepted every bid and took the whole 12,000 bushels!*

The Government has just bought, at St. Louis, 100,000 bushels of oats at 87 1/2 cents per bushel, 100,000 bushels of corn at \$1.09, and 3,000 tons of baled timothy hay at \$29 to \$30 per ton. These are high prices. We none of us realize the enormous consumption and waste of the army.

At Wyandotte, in Michigan, a lady told me she had just paid fifty cents a dozen for eggs. At Springfield, Ill., potatoes are worth \$1.25 per bushel. Butter sometime since was 40 cents a pound, and eggs 60 cents a dozen.

The English agricultural papers continue to devote much of their space to discussions of the relative merits of the different steam plows. One fact seems established: STEAM CULTIVATION IS A SUCCESS.

A company has been formed in this State for the purpose of introducing steam cultivation on our farms. I hope we shall see one or more steam plows at work the coming season.

There are two methods of increasing the productiveness of our farms. One is by liberal manuring, and the other by developing the inert plant-food which lies in such inexhaustible quantities in most loamy soils. It is with the latter object in view that steam cultivation promises such brilliant results. There are millions of acres of land in the United States that only require underdraining and thorough pulverization to make them immensely productive. We want a machine to scoop out the drains ready for the tiles, and then a steam plow or cultivator to tear up and pulverize the soil. We shall have both before many years—perhaps before many months—have passed.

I have just been reading an account of a Fen farm, situated in one of the dreariest commons in England, and which, from producing nothing but furze and ling, has been made to yield crops of 40 bushels of wheat, 48 bushels of barley and 1,200 bushels of mangold wurzels per acre!

The farm contains 500 acres. "On this small, light sandy farm," says the Editor of the *Agricultural Gazette*, "a herd of 50 to 70 cows is milked for the London market, a dry flock of Hampshire sheep, varying from 200 to 400 head, is fed, and hogs ranging in number from 1,000 to 2,000 have been fattened annually up to the average weight of 10 to 20 scores apiece."

In addition to this from 16 to 18 farm horses are kept, and the labor bill amounts to over \$5,000 a year. Of course large quantities of oilcake and grain are purchased for the cows, sheep and pigs, and it is the enormous quantity of rich manure so obtained that has made the farm so highly productive.

This is "High Farming," but it is not "fancy" farming. It is a rented farm, and the occupier does nothing for mere show and parade. He carries on the farm simply for profit.

One of the most successful farmers in this State said to me some time ago: "I have always employed a good many men, and spent a good deal of money on my farm;" and it is so everywhere. Sir Robert Brisco recently remarked at an agricultural meeting: "It is a dangerous and too prevalent idea that *land* gives the rent; it is not the land, but the capital invested in the land, aided by the farmer's judgment, which gives the rent and profit. As well might it be said that the plow or the fork yields the rent. Land can only be viewed as a machine through which the farmer passes his capital, which, worked with judgment, will turn out goods yielding a profit."

John Johnston wrote me to-day that he sold his pair of steers on the 20th of January at 71 1/2 cents per pound, live weight. They weighed 4,345 pounds

He says they gained about 800 pounds from last June. He fed them meal a little over two months. He has had steers gain much more than these. They had been worked, and did not gain any for a considerable time after he got them.

MEETING OF THE N. Y. STATE AG. SOCIETY.

THE Annual Meeting of the New York State Agricultural Society was held in Albany, Feb. 10-11.

The Treasurer's Report shows a balance in hand and invested in United States securities of nearly \$4,000, in addition to \$2,000 appropriated for investigations in regard to flax machinery. This sum remains on hand ready to be awarded to any invention worthy of the honor of receiving it.

Secretary Johnson in his Annual Report congratulated the farmers of the State on their comparative freedom from debt, and thought they were generally well prepared for the financial revulsion which was sure to follow the present inflation of prices. He alluded to the increase of emigration and to its beneficial influence, and thought it would continue. He spoke in encouraging terms in regard to flax culture, and read an extract from an Irish paper showing that flax cloth could be made cheaper than cotton. He commended Sanford & Mallory's flax dressing machine, which received a special prize of \$100 at the Fair last year. Sheep were receiving more attention, to the manifest advantage of the farmers. The breed best to keep depended on location.

He recommended holding another trial of implements and machines. The trial held in 1853, at Geneva, had proved of great advantage. It attracted much attention both in this country and in Europe.

He contrasted the first Fair of the Society held at Syracuse in 1841, with that at Utica in 1863. No one could doubt that the Society had been of incalculable benefit to the State. The twenty-one volumes of Transactions embodied a mass of valuable agricultural information, which was highly prized by all intelligent farmers. Great Britain was making an effort to double her crops so as to be independent of foreign supplies. Can not this be done in this country? Farmers were never so prosperous as now. Mechanical appliances for facilitating the labors of the farm were never more numerous or effective. The crops last year were a full average.

He alluded to the dairy interest. The demand for American cheese in England was on the increase, and the factory system was rapidly extending and giving us a better quality of cheese. Our choicest cheese was equal to the best English dairies.

He alluded to the importance of fruit culture, and thought the Fruit Growers' Society of Western New York was second to none in the world in interest and usefulness.

On the conclusion of the Secretary's Report, the usual committee of three from each of the eight judicial districts in the State was appointed to nominate officers, and recommend a place for holding the State Fair. The officers nominated were unanimously elected, as follows:

President—JAMES O. SHELDON, Ontario.

Vice Presidents—Simon R. Bowne, New York; Samuel Thorne, Dutchess; Herman Wendell, Albany; T. L. Harrison, St. Lawrence; Solon D. Hungerford, Jefferson; Ralph Newell, Delaware; H. T. E. Foster, Seneca; Wm. A. Bird, Erie.

Cor. Secretary—Benjamin P. Johnson, Albany.

Rec. Secretary—Erastus Corning, Jr. "

Treasurer—Luther H. Tucker. "

Executive Committee—S. Campbell, Oneida; T. C. Peters, Genesee; Elon Comstock, New York; R. H. Avery, Madison; S. R. Pinckney, New York.

In regard to the place of holding the next Fair there was a tie vote, twelve for Utica and twelve for Rochester. The decision of the question was left to the Executive Committee.

On Wednesday evening, the Hon. Stanton Gould, who was appointed by the Society to visit the sorghum growing sections of the West, made an interesting report. He found the cane injured by frost, and estimates the product of sugar and molasses at not much over half what it was the year previous. He found little if any *sugar* produced from the sorghum, and was not sanguine that it ever would be produced from the sorghum in any quantity. It will produce excellent molasses, where the climate is suitable.

He found the largest crops on the bottom lands, and they escaped the frost, owing to their being enveloped in fog. The sirup from the poorer upland, however, is *richer* than that from the bottom land. In this State, he thinks bottom land will be best for sorghum. Any soil that will produce 40 bushels of Indian corn per acre, will produce from 60 to 100 gallons of molasses. He *heard* of one acre at Quincy, Illinois, that produced 500 gallons, and another case where 600 gallons per acre was obtained. 320 gallons was the largest yield he was able to verify by personal inspection. The climate in this State is not warm enough for the best success in sorghum culture. In Southern Ohio and Illinois the average temperature of the three summer months is 71°, while in the Genesee Valley it is only 66°; and as a general rule the frosts in this section are earlier than in the cane growing regions of the West. On the whole, then, our prospect of growing our own sirup is not flattering. In regard to the best time of planting, and whether the seed should be soaked or not, there was much difference of opinion. He thought as a rule, it should be planted at the same time as Indian corn—"when the oak leaf is of the size of a squirrel's ear." The seed should not be covered more than a quarter of an inch deep. Thorough

pulverization of the soil is of great importance. The field should not be cultivated after the crop was knee-high. Cane ripens better if the suckers are left on, but the growth is less. If the suckers are cut they will start again. It is better to bend them down and put a little soil on the ends to hold them.

The chinch bug attacks sorghum. The best preventive is to sow strips of buckwheat and Hungarian grass. They will feed on these crops and not touch the cane.

He spoke highly of Jacob's Evaporating Pan. The juice flows in continuously, as fast as it evaporates, not being more than a quarter of an inch deep.

After the conclusion of Mr. Gould's report, Dr. Fitch, Entomologist to the Society, gave an interesting account of the asparagus beetle, which has proved so destructive in the neighborhood of New York city. He also alluded to the cut worm, which has proved so destructive to flax the past season. He thinks there are several varieties of cut worm. They are most destructive in June, eating all kinds of vegetables. In the autumn they burrow beneath the soil, where they lie in a dormant state till spring. They can be killed by *thawing* and freezing them. Gradual thawing in the earth does not hurt them; but if they are exposed so that the sun thaws them rapidly they are destroyed. With this object *late* plowing in the fall is beneficial. Early plowing in the spring, if we have freezing and thawing weather afterwards, would be useful.

We were not able to be present on the second day, but learn that there was a good exhibition of grain, and other products. The subject of manures was discussed, and it appears that the majority of those present were in favor of spreading manure on the surface as fast as it was made; though, of course, there were some intelligent farmers who disapproved of the plan.

SWELLED LEG ON A COLT.—On page 66 of the February number of the *Genesee Farmer* "W. T." desires to know how to cure the swelled leg of his colt. It can be done by the proper use of the roller bandage. The bandage should be at least six yards long and three inches wide. It should be rolled up tight before applying, beginning at the top of the hoof, with an equal pressure up to the knee and back again, so that every part is covered and put on snugly. A few pins in three or four places will keep it from slipping, as the parts yield to the bandage. The bandage should be kept on when the horse is not at work, and applied as soon as he is brought into the stable. It is better to use the animal every day. The bandage presses out the effusion and gives tone to the limb. I will warrant an entire cure if properly done.—E. B. WOODRUFF, *Morristown, N. J.*

SHORT SERMONS FOR FARMERS—No. 3.

Neither say they in their heart, let us now fear the Lord our God, that giveth rain, both the former and the latter rain, in his season; he reserveth unto us the appointed weeks of harvest.—*Jeremiah, 3: 24.*

The Prophet Jeremiah exercised his office at a time when the Jews had relapsed into the grossest iniquities. God sent him to reprove his people for their sins and to denounce his judgments against them if they continued in their sins. He had little success in his mission, though earnest in his fidelity. He suffered opposition and persecution, but nothing could deter him from declaring fully and faithfully the messages with which God charged him. He was so deeply and constantly afflicted by the obstinacy of the people and the awful judgments which he was commissioned to denounce against them, that he is called the weeping prophet.

In the text the Prophet mentions one sin, which with others was provoking the Divine judgments. The sin was this: not recognizing the providence of God in succeeding the labors of the husbandman in abundant harvests. They had become so besotted in sin that the Divine goodness in filling their baskets and their store with the fruits of the earth, did not affect their hearts with gratitude and love to the author of their temporal blessings.

The providence of God is so manifest in the production of the fruits of the earth, that the husbandman who does not recognize and acknowledge it, must have the eyes of his soul blinded by sin. If his heart is not affected by the sentiment of grateful love in view of the Divine goodness in crowning his labors with success, it must partake of the vileness with which the Prophet charges the Jews in the context: "This people hath a revolting and a rebellious heart; they are revolted and gone."

No class of men are so constantly near God in his providence as farmers. The tradesman and the mechanic are, of course, dependent for success upon the providence of God, but not so immediately and directly as the farmer. The rain, the dew, and the heat of the sun, are under the direct control of God. He sends the rain, the hail, the thunder and lightning, the frost and the snow, the wind and the whirlwind. He acts through second causes. What we call the laws of nature are nothing more nor less than the uniform and regular methods in which God exerts his wisdom and power. In these uniform methods and through second causes he exerts his efficiency to a greater degree sometimes than at others. At one time the sun may shine in a cloudless sky with far less heat than is given in the same circumstances at another time. It is beyond human philosophy to explain this difference. But it is easy of explanation upon the philosophy of the Bible, which ascribes all the operations of nature to the direct agency of God.

Who can explain, upon the principles of what is called natural philosophy, why one season is colder one year than the corresponding season of another year? Why one season is wet and another dry? Why one day the wind from the N. W. is twenty degrees colder than it is the next day? Why one year the farmer is overrun with grasshoppers and another year exempt? One year worms cover our orchards, and if not destroyed, their ravages seriously diminish the profits of the farmer. Another year he is exempt from their annoyance. Who can explain this upon the principles of natural philosophy? God punished his ancient people by bringing upon them the palmer-worm, then the locust, then the canker-worm, then the caterpillar. Was this done by a blind law of nature without the direct agency of God? It could not have been. So now the ravages of the fly, the wire-worm, the curculio and of other insects are under the control of God, which is exercised through second causes. God can exert his power, through what we call the law of increase, so as to multiply to an unlimited extent destructive insects, or through the same law he can prevent their pro-creation. In accomplishing these ends he does not work a miracle, for he constantly exerts his power through second causes, giving them at one time a vigor and power which he withholds at another. He can send rain in drought, or cause the rain to cease. He can send cold and snow in seed-time, or he can send warmth and fructifying showers. These things he can do and does without working a miracle. A miracle is an unusual exertion of his power—*i. e.*, without the intervention of second causes.

REMARKS.

1. This subject shows us the shallowness of that philosophy which teaches the uselessness of prayer for any good dependent upon what is called the operations of the natural world. The Infidel, in his ignorance, says we ask God to work a miracle when we ask him to send rain in drought—for heat in a time of unseasonable cold—or for abundant crops, because the world must go on according to fixed and immutable laws—*i. e.*, these laws govern the world, instead of God's governing it. Would the Infidel be willing to live in a society where inanimate, unintelligent law governed, without the agency of the judicial and executive power? Demolish our courts, discard all executive officers, annihilate our jails and prisons, and let the law remain in all its innate majesty and power. Would the Infidel be willing to live in a society in these circumstances? And yet he prefers to exclude God from exerting his power in nature and governing the world by his constant agency exerted through second causes. He prefers to be the subject of a blind, unintelligible and unintelligent something which he calls the laws of

nature, rather than to be under the control of One ever present, active, intelligent, infinite Being, who without a miracle can answer prayer for things he has promised, and which involve his immediate and constant control over all nature.

The Christian exercises the profoundest philosophy when he prays for all those influences in the natural world which are connected with his well-being. God can give them without working a miracle. He often has given them in answer to prayer.

2. We see from this subject that the husbandman ought to be a praying man. He associates himself so closely with the power of God, exerted in crowning his labors with success, that he acts in an unbecoming manner when he restrains communion with him upon whom he is so immediately dependent. There is something sublime in a husbandman, after having done his part to produce a crop, bowing before infinite power and goodness, seeking a blessing upon his labors. The reflex influence of this habit of prayer will be seen in careful and diligent culture, and in the neatness and thrift of everything around the husbandman's home and fields.

MAKING CHEESE.—I keep a dairy of thirty cows, and think of making cheese the coming season, and wish to make it as easy as I can for the women folks. Now, will you or some of your correspondents give me information as to what is the best way for warming the milk and setting the curd, and how much salt and runnet it wants to 50 pounds of cheese? If it is right to use a furnace to warm the milk in, where can it be got, and what is the cost of it? I want all the information I can get about making cheese, for it is a new business to me.—WM. TENBROECK, *East Troupesberg, N. Y.*

ORINOCO TOBACCO.—Mr. D. S. Heffron, of Utica, N. Y., writes us that he has raised this new variety of tobacco for two years, and finds it at least fifteen days earlier than the Connecticut Seed Leaf. In the *Country Gentleman* of February 11, E. A. King, of King's Ferry, N. Y., states that he raised it last season, and good judges pronounced the cigars made from it equal to the best Havana. He thinks it will ripen in the coldest regions of this State.

WHAT ARE THE BEST PASTURES FOR DAIRY COWS?—In answer to this question a correspondent of the *Genesee Farmer* in Michigan recommends seeding down the land with one-half clover, one-fourth timothy grass, one-eighth June grass, and one-eighth white clover. He thinks that the pastures ought not to be allowed to lie down longer than three or four years before being again plowed.

STORING HAY IN STACKS VS. BARNS.

THE following letter from D. F. Rogers, of Waltham, La Salle county, Ill., was read at a recent meeting of the New York Farmers' Club:

"I notice in a late number of the *Tribune* a discussion upon stacking grain and hay. Allow me to add a word out of some years' experience in both methods, viz: stacking and storing under barn roofs. It seems to me that when hay is put up in long, narrow ricks, made as high and steep as the wind will allow, built solidly and well up in the middle, it will keep better in every respect than if stored in barns. There are many good reasons for this opinion, but I'll risk the opinion alone this time.

"As to building barns to store small grain, the idea seems almost ridiculous to farmers here, who raise from fifty to one hundred acres every year; it would take a fortune to build such an establishment, and then with our present method of thrashing the grain would all have to be moved out again when the 'machine' came round. Everybody who has ever farmed in the West knows that well-bound, dry wheat can be stacked so as to stand any weather, for any length of time, and with no loss worth mentioning, even by a New Hampshire gravel-scratcher, who saves every kernel.

"There is, no doubt, a great amount of hay and grain lost by bad stacking, but I have not very faint recollections of hay in scaffolds in New England ruined by the odors from stables beneath them, and of 'mow burnt' stuff, that smelt to heaven from the other side of the floor. The fashion of thatching stacks, so common in England and other places, is entirely unnecessary out here. Our dry, windy atmosphere is a sure preventive of mold and must; in fact, more hay is spoiled here by being dried to death than in any other way.

"The habit among tidy farmers here is to build ricks instead of a round stack of hay, as they cut better; a slice cut from a round stack exposes it to the danger of being blown over, and I never saw a stack or rick open its whole length to feed from.

"An excellent system for farm buildings is low, snug stables, and sheds for horses and cattle; low, roomy granaries for thrashed grain, never tempting the wind or fire with more than one story, and stack neatly all hay and grain at a safe distance.

"I hope this subject may come up before the Club again."

Mr. Carpenter contended, with the light that he had derived from the cultivation of a hundred-acre farm in a rocky region, that no good farmer ever builds stacks, and that it was in the highest degree economical to store everything in barns. He also contended that hay could be stored in a barn in a greener state than in a stack. In short, he is opposed to all stackers and stacking.

Mr. Bergen thought that the gentleman who wrote that letter knew better about the circumstances of that country than we do, and that his system was best there.

Dr. Trimble said that some of the best Pennsylvania farmers stack much of their hay and grain, and if it was as uneconomical as Mr. Carpenter would have everybody believe, he did not think it would be persisted in. Then, look at the vast quantity of salt-marsh hay put into stacks. Would it be economy to build barns to store that?

Solon Robinson gave a description of Western farming, and showed how utterly impossible it would be for men who grow from 100 to 500 acres of grain a year to build barns for its storage. So obvious was the necessity as well as economy of stacking, that he thought a man as hard to be convinced of such an important fact, might have it hammered into him upon an Illinois prairie. What I want, said Mr. R., is that this Club shall not indorse the preposterous notion that stacking is a sign of slovenly farming—that a man must not raise hay and grain unless he has a barn to put it in. We should rather teach people that, although a barn is a convenience, it is not a necessity; and that great prairie farms can be made profitable where all the hay and grain is put up as described in this letter. Even the thrashed grain can be safely stored in rail pens, and it would be almost impossible to find storage for Indian corn in any other way than in rail-pens or cribs, where it is most abundant.

A gentleman from Illinois, who was present, confirmed the statement of this letter, excepting in relation to thatching. That he thought as important on the prairie as in any country, and with that, he thought stacking decidedly the best way, even were it possible to furnish storage in barns, to put up both hay and grain on the prairies.

FARM WORK FOR MARCH.

FINISH the various jobs of winter, and prepare to commence spring labor in earnest. Examine all tools and put them in good order. Paint and grease carts and wagons. Examine and replace harrow teeth. Repair hinges of sagging gates, and nail loose boards on fences. Procure and clean grass seed for spring seeding. Examine and obtain a good supply of the best seed of oats, barley and spring wheat. See that teams are kept in good working order, and if they can be frequently used, half a day at a time, they will become better accustomed to the active labor of spring. Inspect thoroughly all the barns and out-buildings, and see that every part is in good order. Oil harness, and repair it where necessary for spring work.

Sow clover seed early—it may be most accurately done on a thin snow, rendering the seed and footsteps visible. Plant early potatoes, for family use, as soon as the ground is thawed; if previously sprouted, in a warm place, an inch or two in length they will come up sooner. Clean out cellars thoroughly. Give special care to the cows and calves. Look over the directions for the two previous months, (see January and February numbers of the *Genesee Farmer*) for additional suggestions.—*Tucker's Annual Register*.

POULTRY HINTS FOR MARCH.

WRITTEN FOR THE GENESEE FARMER BY C. N. BEMENT.

THIS month poultry require particular attention, and the hens must be looked after. If not already done, old nests and laying-boxes should be cleansed by removing the litter, and scalded with boiling water, and washed inside and out, with hot lime-wash, to sweeten and free them from vermin. Let nest-boxes be often replenished with fresh litter of hay or straw.

The roosting department should receive a thorough white-washing; the roosting-poles should be passed through a fire made of straw to destroy the lice as well as their eggs; then lime-wash and replace them. The room should be thoroughly cleansed, the droppings of the fowls removed and the floor strewed with slaked lime, and then a layer of muck or fine, dry mold. See that the fowls have plenty of fresh water, gravel, broken bones or shells, and old lime mortar—not forgetting the box of fine sand and ashes for them to roll and bathe in, as the vermin do not like dust thrown in their eyes.

It has generally been supposed that there would be great difficulty in rearing chickens hatched in February and March on account of the cold; but with proper conveniences, we found it more certain than those hatched in June. Many persons fail in rearing chickens for want of a little attention to them at this season of the year.

Some of the early-laying hens—the Cochins and Brahmas, for instance—will begin to show a desire to incubate, and if early chickens are desired it is best to humor this propensity and let them set. See that they have selected a safe, warm place, where she will not be disturbed by other hens depositing their eggs to the general fund. Eleven to thirteen eggs, as fresh as possible, should be given her, and a date twenty-one days in advance should be marked in a conspicuous place on the nest-box with chalk.

Our plan is to remove the hen with her little family from the nest, say from twelve to twenty-four hours after hatching, putting them in a warm room for a few days to gain strength; then, if the weather is fair, place them in coops made something in the form of a forcing-frame or hot-bed covered with glass, and set where it will receive the whole force of the sun; if sunk in the ground two feet or so, or if on the surface, bank up with fresh horse-dung, and there will be no difficulty in rearing chickens, if the necessary requisites are furnished—such as fine gravel, lime, dust and ashes.

When the chickens first come out, feed for ten or fifteen days with bread soaked in loppered milk or thickened curd and hard-boiled eggs, chopped fine; afterwards with coarse meal or fine-cracked corn. All kinds of soft food, such as fine meal mixed with

water, should be avoided at this age, but plenty of pure water, which should stand before them in such a manner as the chickens can not get into it.

To keep them healthy they want something for food that will take the place of animal matter, that they take in summer, in the form of bugs, worms and grasshoppers. Some fine chopped fresh meat should be given them daily. The mother hen should be supplied with plenty of corn, to prevent her from eating the chicken food.

TO CURE A HORSE FROM PULLING AT THE HALTER.

EDS. GENESEE FARMER: I have seen many barbarous remedies in print for this fault, which, so far as my experience goes, is very easily and safely remedied. I think that a horse will pull as much by the head, with a common strap halter or bridle, as he can by the breast through a collar, and perhaps even more, for to pull backwards he uses both his fore and hind legs, while in drawing forward only his hind legs are used; and the result is, that in pulling backwards he is pretty sure to break any ordinary fastening, and thus confirm the habit. But the case is different if you fasten him by the neck: there is then, in pulling, a pressure upon the muscles that paralyzes, in a measure, their force.

Now, then, get a strong two-inch strap, with a stout buckle, and put on it a ring, such as is used for halters, and buckle the strap around his neck, and, if you wish, let it remain there. Get a three-fourth inch rope and tie a large knot in one end, and bind the other with a thread; carry this in your carriage, and when you wish to tie him, slip the rope through the ring and tie him to a strong post. He will pull a few times, but will accomplish nothing but his own defeat, and will soon give it up.

Such is my experience, and I have never known a horse to hurt himself pulling by the neck; while with a rope halter, back of the ears, there is danger of producing permanent injury, and I think it one of the causes of polo-evil.

S. B. P.

Mushegan, Mich., February, 1864

SAVE YOUR OLD FILES AND RASPS.—A correspondent of the *Maine Farmer* says old files and rasps may be made nearly equal to new ones. First boil them in soap, ley or a mixture of slaked lime and soda in water. This done, wash them in water and directly throw them into a vessel full of diluted sulphuric acid, formed of one part acid and six parts water; let them remain here for some time, the exact period being easily found by taking out a file, observing whether the nicks appear sharp or not; as soon as the sharpening is effected, the files must be taken out and washed in another vessel containing a solution of soda, about an ounce of soda to a pail of water.

PAINT FOR BUILDINGS.

THE matter of painting out-buildings on a farm was recently discussed at the meeting of the New York Farmers' Club. The question was not whether they should be painted in order to preserve them—that was taken for granted—but what they should be painted with. Solon Robinson said he would give a receipt, which he had given many times before, in hopes that some might be induced to use this cheap, durable paint, which is a better preserver of wood than oil paint, and has this advantage: it can best be used upon unplained boards. This is the formula: Take one bushel of good whitewash lime, and slake it, and mix it into a fine, smooth whitewash. It will take at least forty gallons of water. Then add the following ingredients: 20 lbs. of Spanish whiting; 17 lbs. of rock salt; 12 lbs. of sugar. This mixture should be well stirred, and if mixed a day or two before using it is better. Indeed, it may be kept as long as desirable, and when needed for use, after thoroughly stirring, it is ready. It should be put on like any other whitewash, in a thin condition, and rough boards will require three coats to make a durable white color, which will stand the weather three or four years. It is one of the very best applications for shingles. Its color can be modified to a drab, by Rosendale cement, or to a yellowish shade by yellow ochre, and reddish by Venetian red, or any other tint, by some cheap color. Mr. Robinson had used ashes, and also blue clay, to get a brownish tint.

JOHN G. BERGEN—I am very glad to have this useful information go forth to the people, but I should like to hear why the ingredients added to the lime-wash improve its value so much that it becomes a permanent paint.

SOLON ROBINSON—The lime and salt are both anti-septic, and the adding of the salt makes the wash more penetrating. The whiting is of the nature of clay and forms a white body on the surface, and the sugar makes the whole so adhesive that a man may rub his black coat against a wall painted with this compound, and it will not show a shade of white.

WM. S. CARPENTER—I painted one barn-roof with oil and lampblack, and another with lime-wash and lampblack, and the last holds its color much the best and was materially cheaper. Lime is an excellent preserver of shingles. Witness the soundness of old roofs on the lower side of chimneys.

Alderman ELY recommended dissolving about a quarter of a pound of tallow in a pailful of the hot lime as it is slaked for whitewash, which will make it adhere much better and prevent it from setting off upon everything that touches it, as is too often the case with whitewash. He also said that he had tried the "India rubber paint," but does not intend to try it again. It is not valuable.

NOTES ON BACK NUMBERS.

BY O. W. TRUE, FARMINGTON, ME.

EDS. GENESEE FARMER: I marked two or three articles in the November (1863) number to give a word upon, but it has run along until now before getting ready; yet, as they are questions of standing importance, if of use then, will be equally so now.

Brining Wheat: p. 335, No. 11.—My father once spoiled eight bushels of wheat intended for seed by brining it, in this way: It was thoroughly washed in brine-water—do not know just the strength of it—and then putting slaked lime into the wheat in order to dry it. On the afternoon intending to sow the wheat—it was prepared in the forenoon—it began to rain, and rained for three days like a shower, so that it was not sowed. It did not heat or sprout, but as all the neighbors thought it not safe to sow it, only about one peck was sown, to try it, upon a favorable piece of land. Not over one-fourth germinated. It was White Spring wheat of good quality. This was a sufficient warning to all who knew anything about it, not to let wheat remain long after brining before sowing. Have not known of seed being materially injured in salt or vitrol brine if not allowed to stand over twenty-four hours before sowing.

Peas among Potatoes: p. 339, same number.—I have raised peas among potatoes repeatedly. My father has done the same, and continues to do so, and many of my friends, with one-half of the rest of the farmers, do so every year, and I have yet to hear of anyone who objects to growing peas with potatoes on account of injury to the potatoes in pulling the peas. Some object to the peas because they are in the way when hoeing the potatoes, because they will come up and grow faster, in the early part of the season, than the potatoes, so that they will be somewhat in the way. The peas are not pulled until the potatoes are nearly or fully grown. The large variety, or Marrowfat, are usually planted at the same time with the potatoes—putting from one to six in a hill with the potatoes. Formerly I put only one or two in each hill, but for some years past I have planted from four to six, because the bugs destroy some, and some are spoiled in hoeing the potatoes. They shade the hill, and keep the soil from crusting over so hard, until the slowly-growing potatoes are fairly up, and then the potatoes, upon our hard, rocky upland, loamy upland or alluvial bottoms, do not rot so badly as when no peas are with them—though not by any means, as some have contended, a sure preventative of the rot.

A GOOD GLUE is prepared by dissolving common glue in vinegar to the consistency desirable for use. It will keep for a long time.

THOUGHTS ON CANADIAN AGRICULTURE.

WE have received from an intelligent English farmer, who has resided for some years in Canada, an interesting communication on the general subject of agricultural improvement. His views, he says, are "somewhat peculiar," but we think they are well worthy of consideration. We make a few extracts, and commend them to the perusal of our readers:

"I have full faith in farming as a profitable occupation, and have proved my faith in it by taking a considerable interest in the clearing up from the forest during the last four years of several hundred acres of land, which is now in cultivation, and I find that it yields a better return for capital invested than ordinary business pursuits. To a business man the returns are slow, but they are sure, and when the improvement of property, as well as the proceeds of the farm, are taken into account, it is far more profitable than ordinary business avocations.

I most unhesitatingly say that the best (certain) operation that any one can undertake, who is at all adapted to the business, is the clearing and cultivation of wild land.

Land in a state of forest is worth a certain sum per acre, according to the density of the population of the neighborhood. Commencing at a dollar an acre for good farming land, it reaches to fifteen dollars per acre so soon as there are five families settled on every square mile in the surrounding country. This fact has been proved over and over again by the statistics of American and Canadian civilization and improvement. I refer you to a rare work published in 1798 (*American Gazetteer*, Jedidiah Morse M. D., Boston and London,) for this fact, which has been, and is, borne out by every day experience.

Forest land costs to clear and fence it, in ten-acre fields, sixteen dollars per acre. If the potash resulting from the ashes is manufactured, it makes a return of one-fifth to one-half of the cost of clearing, according to the class of timber which covers the land.

The first crop of wheat, with the potash, will always, in average seasons, pay for the entire cost of clearing. You therefore get all the outlay of clearing back from the land itself, in the course of the second year from the time you commenced operations. And what is your position then? You have a productive property. It is good, as such, for all time. It will always yield, if only used as pasture land, a fair interest for its cost, and when cultivated it yields just in proportion to the skill and labor bestowed upon it.

From the time the forest is removed the farm becomes a manufactory of provisions for the human family; but it is not like other manufactories—an

investment which is destroyed by time, accident, or change of profession. A mill, cloth manufactory, brewery, distillery, or other business of the kind, is valueless when the owner ceases to use it; and if it remains out of employment for a few months is depreciated some 25 to 50 per cent.—a few years' idleness and the property is destroyed for all useful purposes. But a farm, when once improved, always represents a value equal to the first outlay; even if abandoned, the fences and buildings only go to decay, while the land, by lying fallow, does not, at all events, decrease in power of fertility, and only requires renewed exertion on the part of the owner to afford a rich return.

We have yet in Canada to come to scientific farming. As yet, (except in comparatively few cases,) our farming has been mere plowing, and sowing, and reaping, drawing upon the richness of the soil with but little return in the shape of manure, or even skillful manipulation. It is this reckless mode of procedure that has brought upon us the various agricultural plagues with which we have been troubled. There can be little doubt that there are as many wheat weevils or midge in England as in Canada; but in England the same number of insects have to work upon forty to fifty bushels to the acre, instead of, as in Canada, from ten to twenty. The consequence naturally is, that each field in Canada suffers to twice or thrice the amount that does the same quantity of grain in England. The same may be said of the other destructive pests which disappoint the hopes of the Canadian farmer—rust, from sowing out of proper season, and for want of proper and healthy tillage and drainage, and mildew from the same cause. The Hessian and other flies are of course subject to the same observations as the midge.

We certainly have untimely frosts, from which the English farmer is free; but the continued moisture and untimely rains certainly make up the difference between the productiveness of the two countries so far as the elements are concerned, excepting the cold. Our winters, however, are not balanced by any similar drawbacks in Britain. Six months keep of cattle and stoppage in the growth of all farm produce instead of from two to three months—is a disadvantage of which too much can scarcely be said; but against this we have the more rapid growth of our summers.

Another most serious drawback to American and Canadian farming is the running out and depreciation of our various kinds of wheat. This is a frightful evil and it seems a mooted point whether it is caused by want of skill or climate. We have in Canada had a succession of the very finest kinds of wheat, most of which are already run out, or at all events greatly depreciated. We have now no good

red wheat. The Mediterranean, although a useful stop-gap, and better than none, is by no means a fine kind of wheat, and this seems to lose its only valuable quality, "earliness," year by year. The Siberian, which some twenty years ago redeemed us from agricultural beggary, is gone—disappeared as a crop, and is now only to be found in scattered cases among other spring wheat. The Fife wheat is fast losing its power of resisting rust, and if not improved will be in a few years among the things of the past. Our white wheats, once our pride and glory, are now the prey of the midge, if wet or other mishaps retards their ripening for one week; and in short, if our agriculturists do not either improve the old kinds of wheat, or introduce new ones, we shall sink from a wheat country into growers of rye, barley and pulse, and inferior cereals.

The experiments and success of Hallett in his production of "Pedigree Wheat" are most encouraging, but it is a solitary instance only, and is a grain not adapted to our climate. It winter kills easily, and grows in such dense masses as to be peculiarly subject to rust—which is a thing no one can contend against.

What we want is a *rust-proof grain*—something that will come late enough to miss the midge, and yet not be destroyed by the rust. Hitherto the only rust-proof grain we know of is the Fife, and that, as I said before, is fast losing its most valuable quality.

While upon this subject, allow me to offer your readers a suggestion:

The first time any enterprising agriculturist has a field of his own rusted, or can purchase one from another person that has suffered from that cause, thrash it out, get some wire-sieves adapted to the purpose, sift the whole produce of the field through different finenesses of sieves until the best grains are separated from the rest; sow these separated grains, and at all events you have a chance of procuring a rust-proof grain. There are most likely some ears among the rusted crop that have resisted the influence—from what cause we can not know—but as Mr. Hallett has proved by his "Pedigree Wheat" "like produces like," so grain that has withstood rust is more likely than not to produce seed that will again resist it.

It is seldom that farmers will do such work as this. They either have not the sieves proper, or they have not the time to attend to it, or they have not the inclination or enterprise to go into what they call "theory:" they will rather purchase a fair seed grain from a neighbor than make a good one for themselves.

One of the best proofs that could possibly be offered that, although wheat, *as a crop*, runs out, yet that, as *individual plants*, it not only does not run out, but continues its individuality to such an extent as to be

recognizable, is afforded by the fact that the Siberian wheat I before spoke of, although it no longer exists as a crop, still exists as an individual kind among other wheat, and apparently these individual ears afford now as fine a grain as did that variety when exclusively cultivated by itself. This would seem to argue that *selection* and *care* would yet return to us these valuable varieties which, as crops, have vanished from among us.

Little, however, is to be hoped for in this respect, until we discover the means of separating the depreciating portion of our seed wheat from that portion that will continue the kind. How is this to be done? It surely should be larger, or heavier, or smaller, or lighter. There must be some difference, one would think, and indeed we know that there is some difference, but what is it?

Mr. Hallett has proved that if you take all the grains in an ear of wheat and plant them in a row, that there are some (generally two or three) of the plants that show a vast improvement on the parent stock. A large number of the rest are similar to the parent seed, and a large number are inferior. He does not give us the relative proportions of the two last kinds, but from the known fact that with us all kinds run out in about ten or twelve years, we may suppose that the inferior plants outnumber the others in certain proportions. These, no doubt, after a time, form the principal part of the seed-grain, and the consequence is that the kind of grain is "run out." Now it is only a few people that have the taste, or time, or the patience, or power, to be improving their seed wheat by constant selections after Mr. Hallett's plan. But these grains of wheat which produce the improving quality, and those which produce a grain which does not deteriorate, must differ from the others. Let us find out that difference, and separate them from the inferior, and the work is done, and we are secure in keeping up our stock for the future.

As the case at present stands, the general opinion of our best agriculturists is that seed wheat which reaches us from the North improves for a time, then remains stationary, but finally, though slowly, deteriorates; while seed wheat procured from the South, runs rapidly down in quality and productiveness, and finally runs out.

This may be the fact, or it may be one of those popular fallacies which so often get a hold on the public mind, but the existence of the opinion is undoubted. Our hopes now rest on importations of seed from Northern ports, and many advocate the importation from Siberia and Northern Europe."

We should be glad to hear again from our correspondent, and in the mean time will our readers give their views on the subject here discussed?

THE ROTATION OF CROPS.

THE following remarks by Prof. Anderson, Chemist to the Highland and Agricultural Society of Scotland, on the rotation of crops, will be read with interest by all intelligent farmers:

"The points to which I am about to advert are many of them of an obscure kind, and I shall have some difficulty in putting them in a clear and satisfactory way before you. They are mainly deducible from some experiments and observations made by Messrs. Lawes and Gilbert. These observers, as is well known, have experimented with the same crop on the same soil for a number of years, both with and without manure, and they find it possible to grow wheat for sixteen years in succession with comparatively little diminution in the amount of the crop. It may be said that this continued growth of wheat is due to the fact that their soil is extremely rich in the substance that wheat requires. But see what occurs when another plant is taken. Beans may be cultivated for twelve successive years, and a crop may be produced, but not without a very conspicuous diminution. If the quantity of nitrogen in the bean be taken as the test of the crop, it appears that during twelve successive years it will draw from the soil an average of nearly 48 pounds weight of nitrogen, but the first six crops of beans averaged 70 pounds, and the last six, 26 pounds of nitrogen, so that there is a very considerable diminution in the quantity. But see how important is the difference in the total quantity. The wheat crop during these successive years removed on the average only about 24 pounds of nitrogen, while the beans abstracted 47 pounds, or nearly twice as much. In the case of clover again, they have found that by no means can they produce more than three or four successive crops. They may manure the soil as they please, apply to it any kind or any quantity of plant food, but nothing they can do will enable them to increase the number of crops of that plant which can be grown in succession. No principle or system of preparing or manuring the land that they could adopt had any effect, and the diminution in the amount of produce is extremely remarkable; for they found that the second crop of clover, with wheat intervening, was only about one-ninth of that produced in the first year. Here it is very clear that the amount of plant food did not affect the produce, and that a supply of the necessary elements is not all that is required. Going still further, more remarkable results attract our attention. When ten crops of beans were grown, one after another, without manure of any kind, they found that the average of nitrogen removed from the soil was 34.7 every year. If they employed mineral manure, the average quantity removed was 51.1 pounds. Now, with ten

crops of wheat, taken in succession, without manure, the average quantity of nitrogen drawn from the soil was 23.4 pounds. But if they took five crops, with five intervening years of fallow, they found at the end of the ten years that the five crops of wheat had withdrawn almost the same quantity of nitrogen as the ten crops in ten successive years—so that, alternating a year of fallow with every year of wheat had the effect of doubling the amount of the crop. The amount of nitrogen removed by the ten crops in these ten successive years was 234 pounds, and the total amount removed in the five years of fallow, with five of crop, was 219.3 pounds—or a difference of about 14 pounds. Each crop in the ten successive years drew 23.4 pounds, and with five years of fallow and five years of crop, the average amount drawn was 43.9, and dividing these by two, we get the average over the ten years, which was 21.9.

"The experimenters next proceeded to grow wheat with alternate crops of beans—five crops of wheat and five of beans in place of the fallow, as in the preceding experiment. Now, these five crops of wheat alternated with those of beans yielded 233 pounds of nitrogen by the end of the ten years—just about the same as when the ten crops successively were grown; but during the intermediate years, the beans were engaged in abstracting nitrogen from the soil and air, and they had actually withdrawn 48.9 pounds of nitrogen every year, so that the taking away of that element from the soil by the five crops of wheat did not prevent the beans taking exactly the quantity which they required. You will thus perceive that the ten crops of wheat contained a certain quantity of nitrogen; that five crops of wheat with five of fallow contained about the same quantity; and that five crops of wheat and five of beans took much more than double the quantity; for the wheat took as much as if there had been no beans, and the beans took the quantity they required. Now, here is a fact of which we had no previous definite idea at all. I do not apprehend that practice offers us any definite facts of this kind, and in making these experiments, Messrs. Lawes and Gilbert have opened up an entirely new field of observation. In the experiments to which I have referred, the soil was left in its original condition, no manure being employed; but they found that if they added manure, especially mineral manure, the result was that the five crops of wheat, when alternated with five crops of beans, gave 207 pounds of nitrogen, and the five crops of beans which alternated with them yielded 227.2, the proportion, in this case, being not larger, but actually smaller, than where no mineral manures were employed. Now, how are we to explain this? If we look at it, we see very distinctly that the question with regard to the mineral mat-

ters contained in the manure throw no light whatever upon it. Here is a plant—the wheat—which takes a certain quantity of material from the soil, and it does not seem to matter how that wheat is grown. It is immaterial whether ten successive crops be taken or five, with beans intervening—exactly the same result is obtained; and if there be thrust in between five of wheat, five of another plant, we get all its produce, as it were, over and above the wheat. It would appear, then, that there are some advantages in growing crops alternated in this way; for beans, when grown ten times successively, do not yield so large a quantity as when put between successive crops of wheat. Take these facts how we may, it must be admitted that they seem to indicate that the rotation of crops is a far more complicated question than has been supposed, and that if a proper explanation is to be found for it, a class of facts to which but little attention has been hitherto paid must be taken into consideration."

FARMING IN NEW BRUNSWICK.

EDS. GENESEE FARMER: One year ago last August, I was in the Province of New Brunswick, and while there made some notes on the peculiarities of the country, and upon their system of farming. I found that farmers there are not so much perplexed to determine what crops to plant and sow, as they are in this latitude, for they informed me that they raised only four crops that were successful with them, grass, oats, buckwheat and potatoes. The climate being unsuitable to a wider range of crops. What wheat and corn they make use of they are obliged to buy, consequently their principal reliance for food is on their buckwheat and potatoes. I remarked incidentally, that if buckwheat was as uncertain a crop with them as it is with us, it would be a poor reliance for the staff of life. I was informed, however, that with them it was a staple crop, and always succeeded, but that they raised a different variety from ours—that they formerly raised the common black variety, and found it was a failure from drouths or early frosts.

The variety now raised is called the rough buckwheat, the kernel is about the size of the black, and triangular, but in each side and extending from end to end is an irregular cavity, causing the kernel to be quite rough, and in color it is grey, and is sometimes called the grey buckwheat. It yields forty to sixty bushels to the acre, and can be sown in the spring as early as oats, or in July as late as the black variety, and is two weeks earlier. The blossoms resemble those of the wild hearts-ease, being quite small, and apparently never fully expanded. The casual observer would scarcely know when it was in full bloom. Two crops are generally raised from one

sowing, the sowing being in June or July, and the following spring the stubble is harrowed over, and a crop is obtained nearly as good as the first one. Where the seed was originally procured I could not learn. I procured four quarts for seed, and last summer sowed in July, the ground was very dry and it did not germinate for a long time. Finally it came up, but the early frost destroyed it except about a pint, which I succeeded in saving. Now, Messrs. Editors, can you give me any information concerning this buckwheat? Is it an old or new variety? Is it valuable or not? They told me there it was raised extensively for stock, requiring but little labor to raise a large number of bushels.

As buckwheat is not an exhaustive crop, and can be sown and reaped when other work is not pressing, it would be a valuable crop if it could be depended upon, which our common buckwheat cannot be, for if sown too early it blasts, and if too late, the frost takes it, and unfortunately there is no happy means of time that can be relied upon.

The oats raised in that section (Kings county, about sixty miles north-east of St. Johns,) are decidedly a better variety than ours, averaging 38 to 42 lbs. per bushel. This may perhaps be owing to the soil and climate. Potatoes do well with them, are generally planted in drills and covered with a plow, harrowed as soon as up, and afterwards cultivated and plowed, and finally plowed out, getting a good crop without much labor. Fruit of all kinds are almost a total failure. Numerous orchards have been set out but die in a short time. Land is worth four to six dollars per acre, and dear at that I think.

Newfane, N. Y.

S. D. REDMAN.

HOW TO KEEP CROWS FROM PULLING UP CORN.—Take half a dozen eggs and take the white out. Put in a very little strichnine, and set the eggs around in the corn field. If they get it before they get any thing to eat in the morning, you will find them in the field. Stick a pole in the ground and hang up the dead crows. If they go off with the eggs *they won't come back again*. Three have been found lying dead beside one egg.—JOHN AYERS, Columbus, Mich.

SPEED OF CARRIER PIGEONS.—It appears from a recent trial made at Bouges that carrier pigeons can still compete in speed with railways. Last week one hundred and forty-five pigeons were liberated at Bouges at five o'clock in the morning to decide a wager. One made the distance—three hundred and seventy-five miles—in less than eight hours, and another in less than nine.

CLEANSING OLD PORK BARRELS.—After scrubbing, turn the barrels open end down, and keep a moderate smoke under them for half or a whole day,

Prize Essays.

ON THE CULTIVATION OF BROOM CORN.

BY F. F. H., EAST AURORA, N. Y.

THE cultivation of broom corn is a branch of agriculture in which very few are engaged, and which farmers generally very imperfectly understand, although the process is very simple, and the labor and care necessary to insure a crop are little greater than are required to grow a crop of Indian corn.

The best soil for its perfect growth is one that is rich, warm and loamy; but any land which will produce a good crop of Indian corn will grow broom corn. The Mohawk Valley and alluvial flats of the Genesee are admirably adapted to its growth. If the ground is not naturally dry and warm it should be made so by underdraining to insure a good crop. Good crops are grown upon the prairies of the West, but when grown upon newly-broken prairie, or other new land, the brush is brittle, and is not as valuable as that which is grown on old lands.

A clean clover sod turned under just before planting, or land upon which corn or potatoes were grown the previous year, will, if rich and dry, produce a good crop. A greensward turned over late in the fall is recommended by some, but unless it is land that has been thoroughly tilled, and is free from weeds, I should prefer turning it over just before planting.

Hog manure is perhaps the best that can be applied, but any manure that will increase the growth of Indian corn will be beneficial to broom corn. Leached ashes, applied at the rate of fifteen or twenty bushels per acre, will be found a valuable addition.

The ground should be plowed deep and thoroughly pulverized with the harrow, and roller if necessary. Then mark out about three feet one way and eighteen or twenty inches the other, if to be planted in hills. The proper time for planting, in Central and Western New York, is from the 10th to the 25th of May. Plant ten or fifteen kernels in a hill, and thin out to six or seven at the first hoeing. The seed should be covered from one to one and a half inches deep. A small handful of ashes to each hill, applied as soon as the young plants appear above ground, will be found beneficial, if the ground is not rich enough so as not to require such a top-dressing. As soon as the plants are all fairly up, run through with a cultivator and follow with a hand-hoe. The weeds must not be allowed to get the start of the plants at this stage of growth. When once started it grows rapidly, and it will not be necessary to hoe more than twice, unless the ground is weedy.

When the seed is one-half out of the milk, pass through between two rows and break down the

whisk to a convenient height for cutting—say from one and a half to two feet from the hurl. Let it stand a few days to ripen, and then cut off the brush so as to leave about six or seven inches of the stem, and place them in heaps at convenient distances through the field. These should be immediately collected into the wagon and taken to the barn, where the brush is sorted into handfuls, the brush of each handful being of equal length. Care should be taken not to expose it to the weather after cutting, as its value will be reduced one-third by an ordinary rain-storm. The seed may be taken off with a hetchel, made by placing upright knives close together and passing the brush between them; but this process can be adopted only where broom corn is raised in small quantities. A machine, driven by water, steam or horse-power, is used to separate the seed from the brush, where broom corn is extensively produced. The seed is very difficult to cure, and requires to be ripened by exposure in the sun, or kiln-dried. From twenty to thirty bushels to the acre is an average crop. It is worth as much as oats to feed to stock, but is very fickle as an article of commerce—bringing in market sometimes fifty cents and at other times four dollars per bushel. Some cut the brush as soon, or a little before, the seed gets into the milk: the brush will bring one-cent per pound more, but the seed is nearly valueless. It is sometimes allowed to dry in the sun three or four days after it is cut, before being taken to the barn, and is then separated from the seed immediately; and sometimes it is taken in and placed on racks, or poles, so that the air will circulate through and dry it, and left until winter before the seed is taken off. In the latter case, care must be taken to keep out the rats and mice. The yield of brush varies from 600 to 1,200 pounds per acre, worth from five to ten cents per pound.

Broom corn is generally considered an exhausting crop; but if the brush is gathered while it is green, so as not to permit the seed to ripen, it is not as exhausting to the soil as Indian corn, and may be grown upon the same piece of land for successive years, with very little other manure than the stalks of the preceding season.

It has been said that a man who engages extensively in the growth of broom corn rarely, if ever, escapes failure. True, it is a very unstable product but I can see no reason why, with careful management, broom corn may not be made a profitable crop. Undoubtedly the man who engages in the business, without any knowledge of the process, and expects to get rich without any care or labor, will come out no better (if as well) as he would if he went into any other business in the same style. In seasons when there is little demand for the brush, it may be kept over without injury, until there is a rise in the price, if one has a place free from mice and dampness.

ON THE MANAGEMENT OF POULTRY.

BY MRS. M. S. B., AURORA, N. Y.

POULTRY we understand to mean ducks of the different species, geese, Guinea fowls, peacocks, turkeys, chickens, &c., in their different varieties. As the space devoted by the *Farmer* to the treatise on poultry is too small for the whole, I shall speak of the management of those most common.

Turkeys and Chickens.—There is as much difference in the management of these as there is in the management of children, with about the same results. There, observe the full-fed, self-satisfied, maternally look of that hen! She picks around for her own amusement—here a worm and there a bone, or charcoal, or broken oyster shell. And soon she is off to lay her accustomed egg, which, when done, is published to the world with strong lungs and good digestive organs. Then look on the other side of the picture: the poor, puny, pale-comb, of the ill-fed hen, one leg under her, while she has hardly strength to balance herself with the other. Into all kinds of mischief—the farmers' pest. We hear him exclaim—"I never see such hens in my life! We must change the breed! Here we have to buy eggs at twenty-five cents a dozen, and have ever so many hens!"

My good friend, the quickest way to change the breed, to get eggs, and have them to sell instead of to buy, is to feed your hens well with proper food, giving them a warm, cozy and comfortable home. This food should be alternated with corn, corn meal, with scalding water on it, oats, barley and buckwheat, with some raw or even cooked meat. Slaked lime, ashes and charcoal should be profusely spread around where poultry "most do congregate."

The good effects of this is easily understood, and it is in the use of these that chickens and turkeys do not get the gaps. Putting ashes at the bottom of nests, when poultry are set, under the straw, is an excellent antidote for this complaint.

The nests for laying or sitting should look, and be, comfortable: for hens, as well as turkeys, are quite particular as to the whereabouts they lay and sit. I have heard of hens that persisted in coming on the bed in the parlor to lay their eggs. Of course it was when feather beds were more fashionable there than pianos. And I have known them to fly in at a two-story window, with the help of a little shrubbery, to make their nest on a nice bed. Turkeys have the same propensity for dry, warm, curious nests, though they are not so domestic as the hen.

Then again behold the full-fed monarch of the yard! How haughtily he spreads his wings in the sun's rays, seeming to understand his nobility among his feathered wives, who, from their docile, happy

looks, we presume never ventured to dispute his right of sway.

On the other hand, did you ever see a lean turkey? If not, I will not mar this page by describing one.

Turkeys need about the same kind of management as that of chickens in respect to food, &c., though I think turkeys require less care. I have seen the best results from feeding them near the house for two or three weeks, with equal quantities of corn meal and curd run from sour milk, and then leaving them to scratch for themselves—save once in a while looking after them with feed to keep them from straying too far away.

This kind of food (curd and a little meal) is the best food for young chickens, and even when older they prefer it to any other. They should not be kept too long in the coop, as their growth will be very much retarded, and they will be subject to many diseases. From two to three weeks I think long enough for them to remain in the coop.

Corn, with change of food, will fatten poultry; but they will fatten in much less time on corn, with boiling water poured over it, and some kernels of wheat scattered through it.

THE CULTIVATION OF WINTER AND SPRING BARLEY.

THE soil best adapted to the growth of barley is a light clay loam. Large crops can be grown on stiff clay soils when they are rightly cultivated. Winter barley may be sown on land that has been well summer fallowed. The soil should be well pulverized before the seed is sown. Bones and farmyard manure containing nitrogen are the best kinds to use. When beans are planted, after a clover sod, barley would do well after the bean crop. The bare ground should be plowed twice before the seed is sown, which should be about the middle of September. Two bushels of seed to the acre is sufficient.

Spring barley should be sown after corn, beans or turnips. The land should be prepared by plowing it in the fall, as the frost in winter pulverizes it and makes it more easily worked. Clay soils are most benefited by fall plowing. The land should either be plowed again in the spring or well cultivated. The seed should be sown as soon as the ground is in suitable order and the weather will permit. Subsoiling would be beneficial. It would keep the land more moist. Barley requires a moist soil, as it often suffers from drouth. After the seed has been sown the land should be rolled. It helps to keep the land moist and warm, and makes the seed come up quicker and more evenly.

If barley is not cut before it is ripe, it can be bound up at once. If it is not ripe it is better to lie in the swarth for a day or two. The sample is often spoiled by heavy rains, after it is cut, which makes it of a dark color.

JAMES K. SMITH.

Morpeth, C. W., County of Kent.



GARDEN WORK FOR MARCH.

If the directions given in last month's *Farmer*, in regard to making and preparing hot-beds, were carried out, they are now in a proper condition to receive such seeds as it is desirable to start early in March.

I generally forward the following: Cabbage, cauliflower, celery, cucumbers, egg-plant, lettuce, melons, peppers and tomatoes. Some would add several other species, but I think the above are about all that it will pay to start in the hot-bed. Of course, those varieties of the different species which mature earliest in the open ground are the proper ones to sow in the hot-bed.

The following list comprises the earliest and best of well-tested varieties: Early York, Earliest Dwarf, and Early Savoy cabbage; Early Paris cauliflower; Early White Solid celery; Early Short Green, and Early White Spined cucumbers; Long Purple, and Improved New York Purple Egg-plant; Early White Forcing, and Early Curled Silesia lettuce; Fine White Japan, and Jenny Lind muskmelon; Early Mountain Sprout, and Goodwin's Imperial watermelon; Cherry, Long Cayenne, and Large Bell peppers; Large Smooth Red, Lester's Perfected, and Fejee Island tomatoes.

Nearly every year develops some new varieties of vegetables, but we must let amateurs experiment with them until their merits are well established before recommending them for general culture.

Sow all the above varieties, excepting cucumbers and melons, in rows about three inches apart, and when from one to two inches high, thin to three inches in the row. Thus you can raise, strong, stocky plants. Cucumbers and melons I would defer sowing until the middle of the month; otherwise they are liable to get too large before the weather will admit of their being transplanted.

I prepare for them in the fall by cutting pretty tough sods, six inches square by four inches thick, and when I prepare the hot-bed I place them, inverted, directly on the manure, with a stick in the center of each sod as guide in transplanting, and sow upon each one about a dozen seeds, covering them with fine loam to the depth of three-quarters of an

inch. When the plants are well started, thin to four in a sod. Managed in this way, cucumbers and melons can be transplanted, even when in blossom, without being retarded much in their growth. I have had cucumbers in this way before the Fourth of July, in the vicinity of Rochester.

Celery plants will do best in the more shaded portions of the hot-bed, with a pretty damp soil.

The best methods of transplanting from the hot-bed into the open ground, we will consider in the appropriate season.

In the latter part of the month, many of the readers of the *Farmer* will want to commence outdoor gardening. There is nothing gained by being in too much of a hurry, as the texture of the soil is injured by digging it while wet. But in some seasons the ground in New York State is as dry, and in as good condition for working the latter part of March, as at any time in April, and in such a case the enterprising gardener will "take time by the forelock."

The first thing in successful gardening, is to put the soil in a proper condition for a deep, mellow, rich seed-bed. The manure question was briefly considered in the February number. To make the soil deep and mellow either sub-soiling or trenching should be resorted to. Trenching is the more thorough and effective way, but sub-soiling, if rightly done, is much better than mere surface plowing. In either case the surface-soil should be retained upon the surface, and the subsoil merely broken up.

If, when the ground is prepared, it is still cold, it is better to defer sowing the seeds a few days until it warms up some, as they can not germinate in a cold bed, and the ground will warm quicker, if left rough, than if raked off in a proper condition for planting. When the ground is in proper condition, rake it off thoroughly with the garden rake, breaking up all lumps, and removing stones and rubbish. Use the line in commencing the drills, and draw the drills straight. Thus your work will look neat, and you will be proud of your garden.

Onions, peas, spinach, lettuce, radish, carrots and turnips are the first crops to sow.

Onions—Large Red, Yellow Dutch and White Portugal are the best varieties of black-seed onions, and Potato and Red-top where bulbs and tops are used. Black-seed onions should be sown in shallow drills, eleven inches apart, and the ground well rolled or trodden down. Potato onions require drills fifteen inches apart, and deep enough to just cover the bulbs; or the better way is to make shallow drills, and press the bulbs into the earth just below the surface. They should be set eight inches apart.

Tops should be set in the same way, but not pressed in so deep.

Peas—The best for early crop is Daniel O'Rourke and Tom Thumb*. The former grows two and a half feet high, and should be sown in drills three feet apart and two and a half inches deep. The latter grows eight inches high, and the rows may be fifteen inches apart. A little poudrette or bone-dust strewed in the drills starts the peas finely.

Spinach—The Round-leaved is the sort. Should be sown fifteen inches apart and thinned to six inches.

Lettuce—Early Curled Silesia, Butter, and Ice-Cream are the better sorts for early crop. Drills should be shallow, eleven inches apart, and plants thinned to six inches.

Radishes—Early Scarlet Turnip and Long Scarlet Short-top are the best early varieties. They like a light, sandy soil, warmed up with manure.

Carrots—The Early Horn is the carrot for early crop, and should be slightly covered in drills eleven inches apart.

Turnips—Early Dutch and Red-top Strap-leaf are the best early turnips. Should be sown in rich ground, or they will be tough and stringy.

These comprise about all the garden crops that it is advisable to sow in March—even where the weather is very fine—as other kinds would be likely to be killed by April frosts, if they should come up.

R.

WILL PEARS SUCCEED ON SANDY SOILS ?

EDS. GENESEE FARMER: It seems to be quite a prevalent opinion that pears will not succeed well on a sandy soil, and many persons having only soils of this description are deterred from planting the pears to any extent, on account of such opinions expressed by eminent American writers—more especially Mr. Downing, who says: "Strong loams, by which we mean a loam with only just a sufficient portion of sand to make it easily worked, are, on the whole, by far the best for fruit gardens in the country. * * For a few years the growth and productiveness of the trees upon sandy soil is all that can be desired; but the trees are shorter lived, and sooner fall into decay, than when the soil is stronger." In the above opinions you seem to concur by quoting largely from Downing in the *Rural Annual* for 1860, on this subject. Now I have not sufficient experience or confidence to dispute the above, but for the encouragement of those who have only sandy soils, I would say that Mr. Barry and Mr. Thomas, both good authority, though preferring the soil with some clay, are much more moderate in their demands. Thomas says, "Good soils vary in many particulars, but as a general rule, one which is dry, firm, mellow

and fertile, is well suited to the cultivation of fruit trees." Space forbids my quoting from other American and foreign writers—expressing very nearly the opinions above expressed by Thomas.

T. W. Fields (American), who certainly speaks like a man of experience and judgement, says in his *Pear Culture*, page 42: "Mr. Downing certainly made a great mistake when, in writing a description of soils suitable for the pear, he pronounced a sandy loam unfitted for the permanent growth of the tree. Two or three hours ride through the western end of Long Island would have convinced him that there were, in that locality, more pear trees from fifty to a hundred years old, than in all the rest of the United States," and mentions three pear trees in the city of Brooklyn that measure respectively, 9, 10 1-2 and 11 feet in circumference, and estimated to be no less than 150 years old. Again, on pages 40 and 41, he says: "The winter blight of the pear has never been known on the rich but light soils of New Jersey and Long Island, which seem peculiarly adapted to the growth, productiveness and longevity of the pear, while the winter of 1855 destroyed many pear trees on the strong soils of the counties of Central New York."

And now, my friends—readers of the *Genesee Farmer*, who, like me, lack experience in pear culture, and have only sandy soils—let us take courage, and plant pears; always remembering that all agree in one thing: that the soil must be dry, deep, mellow and rich, and kept so—more especially for dwarfs.

Of the plum Mr. Barry says: "It succeeds best, as a general thing, on a clayey loam, rather stiff." Without disputing so good authority, I would say, by way of encouragement, that plums have rarely, if ever, succeeded better than on the sandy soils of Western Michigan, so far as bearing qualities and healthiness are concerned; but as to their longevity we can say but little—our country being too new.

Muskegon, Mich., Feb., 1864.

S. B. P.

A CORRESPONDENT of the *London Cottage Gardener* complains that his late fall pears spot badly, and the editor advises him to raise the trees and add a large quantity of stones to the soil in which they are planted, and adds: "At the same time it must be borne in mind that the evil in most, if not all, cases arises from the roots, and to remedy that by laying the roots more dry will be one of the most likely means to effect a cure; and if the trees are not luxuriant we should manure the surface of the soil in early spring, and keep it mulched throughout the summer."

It seems to be the general opinion among the most experienced fruit-growers of the West that apple trees should be trained low, in order to protect the trunk from the rays of the sun.

* Tom Thumb is valuable from its exceedingly dwarf habit, but the quality of the pea is decidedly inferior.—Eds.

THE INFLUENCE OF SOIL ON FRUIT TREES.

THIS subject was discussed at a late meeting of the Fruit Growers' Club in New York. Dr. Ward, of Newark, who is a fruit-grower of much experience, said that if nursery trees are stunted for want of sufficient pabulum, no matter what the after-treatment or soil, they never recover in the orchard, and this faulty development of organs in the young plant may account for the degenerate condition of many trees, much more than a change of soil. "I consider it," he said, "just as important that a young plant should be fed suitable, nutritious, rich food, as a stock-breeder does that his young animals should be treated in the same way. Indeed, there is a great analogy between plants and animals; both are developed by a similar process of nutriment and growth, and when this development is healthy, both become vigorous, and take on the most perfect form. I would, in buying trees, look more to this than to what was the character of the nursery soil, because that can be made suitable, whether naturally heavy or light. Perhaps the most suitable soil for trees, is a medium or loamy soil, which, for a nursery, must undergo a most thorough manipulation and enrichment. The soil should be naturally one that does not suffer from drouth, because that gives a fatal check to growth, and it must be so thoroughly drained that water will not stagnate within reach of the roots.

SOLON ROBINSON—If the theory of analogy between the growth of plants and animals is correct, as I believe it is, then the nurseryman should not only adopt and pursue the same course that the stock-breeder does in giving the young plants nutritious food, so as to produce rapid growth and great vigor, but he should follow up the analogy and look to the seed that is to produce the trees, to be sure that it comes from perfect fruit, sound and healthy, in a fit condition to propagate its species. No stock-raiser would think of using a sickly, miserable, stunted animal, male or female, to produce a thrifty, healthy offspring; and I have no doubt about the fact that some, at least, of the diseased, stunted, good-for-nothing trees, which can not be coaxed to grow and produce good fruit, owe their worthlessness more to their parentage than to their cultivation, or to the kind of soil in which they are grown, or to any violence done them in changing from one kind of soil to another. We all know, in regard to apple trees, that the seeds are usually produced from the pomace of a cider-mill, and embrace those of immature and diseased fruit, as well as those that come from apples perfectly ripened and of good quality. In cutting scions for grafts, the kind of fruit is only looked after—not the healthiness of the tree. Now, if the stock is grown from the seed of a diseased

tree, or immature fruit, and the scion is cut from a diseased tree, is it any more reasonable to expect a healthy offspring in this case, than it would be for the stock-raiser to expect healthy offspring from parents that were notoriously unfit to propagate their species? If this view is correct, a radical reform is needed in the production of all of our fruit trees. In confirmation of this theory, I have noticed that those who undertake to produce new varieties by growing seedlings are very careful to select their seed from the very finest specimens of fruit that they can obtain; and some of them contend that it is of great advantage to plant the seed in the pulp of such fruit as peaches, or at least never allow the seeds to become dry. That is, in looking for the proper season to plant, follow nature's guide. In selecting seed follow the course of those who produce the most highly-developed animals. Follow their course also in the care and food of the young trees. Adapt each to the most suitable soil, and give them rich food and tender care, with shelter from blasting winds, and there will be very little occasion to complain about trees not doing well because the orchard soil is different from that of the nursery.

Dr. WARD—I indorse all this. Everything depends on the starting point, in plant, as well as animal life. Disease of parents often exhibits itself in offspring. Consumption is thus transmissible. The common disease of peach trees, indicated by the yellows, it is well ascertained is transmissible in seeds and scions. We must study and understand better vegetable physiology. Then we shall be more careful about seed. We are too apt to forget that the first life of the plant receives all its nutriment from the substance of the seed. That is one of the reasons why it is thought that the best time to plant the seed that is to produce the tree is just when the fruit is perfectly ripe. The seed and earth, nature declares, are then in the most suitable condition. Who knows how much the future usefulness of the tree is injured by the first check its growth receives in injury to the seed. We know that seeds sometimes have barely enough vitality to start the germ into life.

This is rather a new doctrine. In one of the late volumes of the *Genesee Farmer* the question as to the "Cause of the failure of so many fruit trees sent out by nurserymen" was very fully discussed by correspondents in different sections of the country, and the generality of them attributed it, first, to a want of necessary preparation of the ground and the neglect of the trees after they were planted; and secondly, to the fact that trees in the nursery were usually grown on *much richer soil* and received higher culture than farmers could give them. Dr. Ward's opinion seems to be directly opposed to this view. The truth probably lies between the two ex-

tremes. We do not think there is any strict analogy between plants and animals; but to carry out the illustration of Solon Robinson, we may remark that, while it is true that animals rarely recover from the effects of a deficiency of food and exposure while young, it is equally true that young animals over-fed and stimulated excessively are not as likely to thrive afterwards, under the ordinary treatment of the farm, as those not so pampered. So trees, stimulated excessively in the nursery, are not as likely to do as well, when removed to ordinary soil, as those of more moderate growth. As long as there is such a demand for large trees, we think the tendency will be to stimulate the young trees too much in the nursery, rather than to stunt them by poor cultivation. If, however, the wood of the trees is thoroughly matured, we do not see why a vigorous growth in the nursery should prove injurious to the future health of the trees.

In the discussion that followed, Mr. Wm. S. Carpenter well remarked:

I have planted a good many trees, from various localities and different soils, but care less for that than I do for the way the trees are grown in the nursery. I would reject those that appeared stunted, and those, however thrifty, that were grown so closely that they had not been able to throw out any side branches. I do not want whip-stalks, nor fruit trees grown like willow wands. In nursery or orchard, if the soil is not well-worked, the trees will fail. They will suffer most in heavy soil. In buying nursery trees, it is a good sign to judge of their value, to see that a number of stout limbs have been trimmed off when packing for transportation.

THOMAS G. FIELD—As a grower of trees I concede this truth, but we are not allowed to grow such trees. Customers measure their value by their height. A low, compactly grown tree, with stout side branches, would not be a saleable one.

Mr. CARPENTER said that they would be saleable to any one who had ever planted an orchard of both sorts, for he would then know that the long slender stalks were not what he wanted. As to the soil of the nursery, he did not consider it important what its character was if well prepared. For an orchard, the soil must be made light and dry. As to the theory of looking to a healthy source of the seed for the trees, he could not quite agree with it.

Dr. WARD said that he would defy the gentleman to produce healthy peach trees from seed grown upon trees that had the yellows.

Dr. TRIMBLE—Most of the peaches sold in this city come from such trees, and the young trees grown in the nurseries come from seeds gathered in the streets, and thus the disease is spread everywhere. I was in an orchard the past season of 130

acres, that would yield 30,000 baskets of fruit. In three years all these trees will be dead, and the proprietor would not have another orchard planted upon the same land as a gift, because the trees would die before they gave a crop, and one good crop is all that is looked for, such is the diseased condition of the trees.

Mr. CARPENTER insisted that the yellows in peach trees were the product of an exhausted soil.

SOLON ROBINSON inquired how it happened, then, that the disease was found upon the richest virgin soil in the world—on the prairies and bottom lands of the West?

THOMAS J. FIELD—Then they die of excess of richness as well as of poverty. The yellows upon peach trees show that the tree is diseased, just as the black leaves upon pear trees show disease, and it is not traceable in either case to a defect in soil or culture. As to effect of soil, and change from one sort to another, I would prefer the nursery soil to be of moderate richness, as they do sometimes grow too rapid and with roots too long upon very deep, rich soil. I think that there is a disadvantage to trees grown in a sandy nursery, if planted out in an orchard upon a clay soil. All trees become, in a measure, habituated to a particular kind of soil.

FRUITS IN JAPAN.

Mr. THOMAS HOGG, who is now in Japan, writes as follows to the *Horticulturist*:

"The past spring and summer have afforded me an excellent opportunity of tasting the fruits in their season. The first that makes its appearance is the fruit of a species of *Rubus*, apparently more nearly allied to the blackberry than the raspberry. It is of a light yellow color, small in size, with rather soft flesh. The flavor is peculiar, and somewhat insipid, but, eaten with sugar, becomes tolerable enough, and quite equal to some berries at home with high-sounding names that require plenty of the same material to render them palatable.

"In the month of June, apricots come in, and for two or three weeks are very abundant and cheap. There are several varieties, but all small, and about as deficient in flavor as early apricots are apt to be elsewhere.

"Before apricots are entirely gone the fruit of the *Mespilus Japonica* is brought into market. It is a favorite fruit with the Japanese, and large quantities are brought in daily. When ripe they are very juicy, and have a pleasant sub-acid flavor, that may be compared to a fine ripe harvest apple. Their size, when in perfection, is about that of a medium sized gooseberry. Towards the latter end of their season they become smaller, owing, probably, to the overbearing of the trees.

"Following these come plums, which remain in abundance several weeks. Of these, the variety is greater than of apricots, and some of them equal in size and flavor to those brought into the markets of New York. None, perhaps, equal the Green Gages, or Golden Drops, and other first-rate sorts, but quite so to some classed as desirable second-rate plums.

"Somewhat reverse to the order with you, peaches succeed plums. Although of fair size and appearance, they are inferior in flavor. This may be partly attributed to the practice of picking all their fruits in a very green state. No fruit suffers more from this treatment than the peach; yet it would hardly be possible, owing to the tenderness of their flesh, to bring them to market as they should be eaten, ripe from the tree. They are now (September 8) nearly gone, and have become almost worthless from the injury done them by an insect of the curculio (?) kind, that stings the fruit and deposits its larvæ as does the curculio.

"Muskmelons and watermelons have also been abundant. The former are very inferior, and would not be tolerated on your table; the latter are fair, and would be better, only for premature picking.

"Grapes and persimmons are now making their appearance. The latter, next to the grapes, are, in my opinion, the best fruit we have; they certainly are the peculiar fruit of the country, and take the place of apples in our own. Whether they would answer to make pies I do not know; but as the Japanese do not indulge in that home luxury, it does not enter into the estimate of their value.

"I had almost forgotten to include apples in the lists of fruits brought to market. Not many are brought in, and their season is soon over. They are a very small, early variety, and when eaten just at the right time are very passable. Pears, too, are now coming in; those hard, granular, indigestible things you have seen, called the Chinese sand pear. As an ornamental tree it has its uses, but as a fruit it can not be recommended. Large quantities of them are consumed by the people. Different sorts are cultivated, one of which keeps all through the winter and spring following.

"Until the present season, nothing has been done by foreigners for the introduction of finer fruits (except the strawberry) into the country.

"Last spring, Frank Hall, Esq., and Col. George S. Fisher, U. S. Consul, both made importations of trees from California. Between them quite an assortment of the best varieties of cherries, plums and pears has been introduced, and are now growing finely in their gardens. Their peach trees, grape vines, and a few minor fruits, unfortunately did not do as well. Others, no doubt, will be induced by their success to follow their example, and the best results, by means of private enterprises like these,

may be fairly expected, and the introduction of choice fruits create new desires, and lend their aid in civilizing a barbarous people."

SPOTTING AND CRACKING OF THE PEAR.

IN a recent number of the *London Gardeners' Chronicle* the Rev. M. J. Berkeley, the well-known cryptogamic botanist, says:

"Almost every one complains that in spite of the late dry and warm summer, which was so favorable to the ripening of the wood, and which promises such a plentiful and strong blossom in the spring, pears have kept very badly. Some have prematurely bletted, others have gone rapidly to decay, while many have been spotted all over, so as to be unrepresentable. For the greater part of an abundant crop of Glou Morceau from our own garden are in the latter condition. Under each dark spot there is a brown dry mass of tissue of a greater or less depth, without any tendency to run into a state of moist decay, and extremely analogous to the dry form of the potato murrain. These spots have in the first instance undoubtedly originated in the growth beneath the real cuticle, of a minute brown parasitic fungus, *Cladosporium dendriticum*, which has destroyed the vitality of the subjacent tissue, but has not sufficient vigor of growth or greediness of moisture to make it penetrate deeply into the fruit. Where moist decay has supervened, it is apparently due to other fungi which have accompanied or replaced the *Cladosporium*. This mold has of late years been a dreadful pest both to pears and apples, in some cases being virulent enough to destroy or greatly impair the young shoots, and its growth beneath the cuticle makes it almost impossible to apply a remedy. After a time, indeed, the cuticle bursts, to allow the fertile threads to break out into the air and bear fruit, but the mischief is then already done, and it is notorious that even were the habit different, dark-threaded fungi are far less destructible than those which are colorless. There is no reason to suppose that the fungus is a new visitant, as some kinds of apples, the Golden Pippin for example, have always been subject to this spotting. Unless, however, we are mistaken, it is far more prevalent than it was some thirty years ago, and the discovery of an effectual remedy would be a great benefit to the horticulturist."

LIME WASH FOR THE CURCULIO.—A. S. Miller, of Rockford, Ill., says he succeeds in keeping the curculio from his plum trees by syringing them thoroughly with thin whitewash, say a peck of lime to half a barrel of water. He does this on the fall of the blossoms and as soon as the young plums appear. He formerly dusted his trees with lime, but thinks it better to apply it in the liquid form.

THE BEST TIME TO PRUNE.

EDS. GENESEE FARMER: You say in the present number of the *Genesee Farmer* that February is the time to trim orchards. Permit me to say to you in reply, that May is the best time for trimming fruit trees of all kinds. I can saw off limbs from two to three inches through in May, at the time they begin to blossom or leaf-out, and they will grow over entirely smooth and sound in three or four years. You cut off limbs of the same size in February, and sap will ooze out of the stump until the last of April, the stump will rot and the woodpeckers will dig them out and build nests in them, and they never will grow over.

LYMAN BALCOM.

Painted Post, N. Y., February, 1864.

It may be that it is better to prune old apple orchards as late in the spring as our esteemed correspondent recommends; but we think that ordinary pruning should be done earlier. We would prune both apple and pear trees as soon as all danger of severe frosts was over.

Barry, in his *Fruit Garden*, says:

"The climate, the nature of the species, &c., control the period of pruning to a great extent. In the South, what we term the winter pruning—that performed during the dormant season—may be done very soon after the fall of the leaf. In the North, it is deferred to February, March, and even April. In Western New York, we prune apples, pears, and other hardy fruits, as soon as our severe frosts are over—say the latter end of February and beginning of March. If pruned sooner, the ends of the shoots are liable to be injured, and the terminal bud so weakened as not to fulfil its purposes. Besides, the wounds do not heal well.

"The peach we prune just as the buds begin to swell. The fruit and leaf buds are then easily distinguished from one another, and the objects of the pruning are accomplished with more precision.

"Grapes may be pruned any time in the winter, as a portion of the wood is always left above the bud. Gooseberries and currants also, any time in winter. The stone fruits should always be lightly pruned, because severe amputations almost invariably produce the gum. Where it is absolutely necessary in the spring, the wound should be coated with grafting composition, or with that recommended by Mr. Downing: 'Alcohol, with sufficient gum shellac dissolved in it to make a liquid of the consistence of paint, to be put on with a brush.' This excludes air, and is not affected by changes of weather."

FIVE pears were recently sent from California to New York which weighed 131.2 pounds. The largest one weighed 31.2 pounds. On tasting it—not eating it—it was found, says the *Tribune*, to be possessed of as little of the flavor of a good pear as it would had it been manufactured of corn meal and sweet apple juice. "It was as unlike a pear as the little russet apples that we see in June are unlike a good apple, or as unlike as a shaddock is to an orange."

THE Coleus Verschaffelti is being highly recommended by all English growers as a bedding-out plant. It is quite easily cultivated, and has the advantage of being new. It can be grown from seeds quite readily.

LIMING APPLE ORCHARDS.

A FARMER in Doylestown, Penn., states that lime has a very injurious effect on apple orchards. He says: "In the spring of 1841 I moved (with my father) to a farm in Plumstead township. The orchard on this farm had been recently limed; the trees, though young, showed symptoms of decay; many of the smaller limbs were dead and decaying. The fruit in the fall was imperfect and dry, and full of pithy spots; when an apple was cut transversely these spots had a yellowish appearance. I was several years in forming a judgment of the cause of these spots and the dryness of the apple. The second year the fruit was less affected with these spots; the fall following, still less so. In the spring of 1844 I moved to a farm I had rented, in Buckingham township, where I remained three years, and then returned to the farm in Plumstead again, where I staid two years more. I found the apples much improved and improving in these five years. I therefore concluded that it was the effect of the lime. In the spring of 1859 I again moved to another farm in Buckingham. On this farm there was a small young orchard. This orchard was rented by another person, who informed me some time during the winter that the apples from this orchard were not keeping well, and were imperfect and affected with such spots as I have spoken of before; the year previous they had kept well and were very fair. I felt fully satisfied from this information and previous observations that the ground must have been limed between the gathering of the two crops, and when I informed him of my suspicions he confirmed them by admitting that he had limed it that spring, and had suspected the lime to be the cause. I also know of another orchard in the same neighborhood affected in the same way by an application of lime, the fruit being almost worthless for several years, and the trees much injured."

We should be glad to receive more information on this subject. We are by no means satisfied that the lime was the cause of the specks on the fruit. It is more reasonable to attribute them to negligent cultivation previous to the application of the lime, and the fact that in a few years afterwards the trees were more thrifty and healthy would favor this supposition. The action of lime is slow. It decomposes and desintegrates the organic and mineral matter of the soil, and this is not accomplished at once. We should not look for any benefit from the application of lime to an orchard the first year.

JAPANESE PLANTS.—At the sale of plants brought from Japan by Robert Fortune, which recently took place at Covent Garden, London, 623 lots were offered, and sold for over \$3,000. Plants of the true *Aucuba Japonica*, from two to three feet high, brought from \$35 to \$45 each.

Ladies' Department.

WE see in a weekly agricultural paper quite a severe criticism of three, or properly two, of our receipts—one for "Queen Esther's Bread," and the other for "Chicken Salad," with the dressing. The first is condemned as manifestly absurd, and the second as so vague as to be useless. In the last the dressing was the main point, and it was sent to us by a housekeeper of experience, who said it was excellent. If our critic is a lady, we hope that she will try them both and then give us the result, as we have great confidence in the source from which they came. We take great pains to have our receipts really good, and never admit one that does not come to us with the recommendation of some experienced person. Many who have tried them say that the "Genesee Farmer receipts are never known to fail." We should be very glad if our lady readers would add to the interest of their department by sending us any choice receipts that they may have.

THE *Germanstown Telegraph* has the following receipts which, as they require no eggs and very little butter, commend themselves to all in these times of high prices:

WEDDING CAKE PUDDING.—Four cups of flour, a half cup of butter, teaspoonful of soda, one cup of molasses, one cup of currants or raisins, a teaspoonful of salt. Steam it three hours. *Sauce:* A half cup of butter, one cup of sugar beaten to a cream, one egg well beaten, one glass of wine, a wine-glass of boiling water. Steam five minutes.

CIDER PUDDING.—Two pounds of flour, two teacupful of suet chopped fine, a cupful of raisins or currants. Mix well with cider until it is a stiff batter. Boil two hours. This will be found equal to plum pudding.

A **HELP-MATE INDEED.**—A Columbus (Ohio) correspondent of the *Cincinnati Gazette* writes: "Dr. Wormly, Professor of Chemistry in the Medical College in this city, has been for some years experimenting on the effects of the different poisons upon animal life. For this purpose he has killed several hundred cats and dogs (sheep-growers take notice,) with poisons, and by analyzing their blood and stomachs has determined the exact appearance of the poison crystals after doing the work of death. The greatest difficulty he has encountered in this investigation has been to get these appearances of the crystals perfectly represented on paper. To overcome this difficulty his wife, daughter of John L. Gill, of this city, came to his assistance, and made perfect sketches of the poison crystals, as the Doctor, by chemical analysis, brought them to view. This done, his next trouble was to get the sketches transferred to steel plates. For this purpose he called upon the most distinguished engravers of Eastern cities, who told him that it could not be done short of three years' time, and almost a fortune of money. One of them engraved a single page, but the Professor was not satisfied with the job. His wife again came to his relief, and taking up the art of engraving, very speedily mastered it, and in ten months presented the author of the forthcoming book on poisons with the whole series of plates, the delicate touches of which defy criticism even under the scrutiny of a microscope."

FASHIONS.

As it is necessary to dress, it is better to do it well than ill, and changes are sometimes very pleasant. Bonnets are very nearly the same, except that there is a change in the cape. It is almost a complete horse-shoe, measuring at the back five inches and at the sides three and a half. This allows for a tiny frill at the top, and two very shallow plaits at the back. *Godey* says: "We can answer for the set and style of this cape—always the most difficult part of a bonnet to arrange."

Small nets are now made for waterfalls, which are very convenient. They are made of the finest silk, and are almost invisible. With one of these anyone can arrange a waterfall, as the slight shading which it gives conceals all defects. Plaid nets are also worn, highly trimmed with ribbons, and in some cases with flowers. White nets of coarse cotton or hobbin are used for night-caps, drawn up with a bright-colored worsted braid, which keeps the net in its place better than ribbon. They are much nicer than night-caps, as, while keeping the hair in order, the head is not too warm.

Plaid dresses and cloaks are more stylish than ever in Paris. The French journals admit that there is absolutely nothing but plaid—plaid dresses, plaid bonnets, plaid cloaks, and plaid parasols trimmed with plaid ribbons and plaid fringes.

Veils are much worn drawn tightly over the face. The new shape is nearly round, and is suited to this style. If the old ones are worn, they must be closely wound around the elastic at the sides.

A string or double string of large black beads round the neck over the sace or cloak is quite in favor. They are graduated in size—the largest about the size of a marble. Imitation jet is generally used, as the fashion will be a short-lived one, and the real is too expensive. Dresses are worn so constantly looped up over the under skirt, that it has now become quite the custom to trim the latter very handsomely and leave the other plain. Serge dresses and skirts alike are quite in vogue, but they are very heavy. Alpaca will take their place as summer approaches. Every kind of trimming appropriate to the dress-skirt is now put on the under skirts. When they are not like the dress, the black and white striped balmoral trimmed with a wide black velvet, the velvet braided with white, is the most stylish. Some balmorals are striped with bright colored silk or enriched with silk designs run through them. Very high balmoral boots or boots laced up just above the ankle with the new style of anklets are used altogether. They have little tassels at the top, and have a very pretty effect.

DOUBLE-HEELING STOCKINGS.—Miss S. R. Bowman remarks on this subject as follows: "Soldiers very soon walk through the heels of their stockings. Now if the good ladies who knit so much will only make fine double heels, in the following manner, 'the boys' will probably foot up a victory in 'double quick.' Take two balls of yarn, and on the right side knit one stitch with one thread, and the next with the other, and so on across the needle. This alternately makes a loop on the inside, which renders the heel very thick and durable, without making it any wider. On the wrong side, take both threads together, and knit as one, in the usual way."

Miscellaneous.

THE FARMER LAD.

It was a wild and wayward maid,
Of budding seventeen,
With laughing lip and roguish glance
As eye hath ever seen,
And "no pale city beau," she said,
"Shall aye my true love be;
If ever wedded wife am I,
A farmer lad for me!

"I met a lad, a sowsy lad,
Among the new-mown hay;
His manly cheek had won a glow
From rosy dawn of day;
And he was tall, and straight, and strong,
And stately as a tree;
His limbs were like the sturdy oak's—
The farmer lad for me!

"Oh! he the snow-white fleece can shear:
With sweeping strokes can mow;
In busy March, when winds blow dry,
With even hand can sow,
And none can guide the plow so fair
Along the stubborn lea,
Or load the winnowed grain like him—
The farmer lad for me!

"The city beau with dainty hands,
May smooth his scented hair;
The city beau with gliding tongue
May flatter lady fair.
My lad less polished mein may show—
As true his heart may be—
He's but an honest farmer lad,
But he's the lad for me!"

DOUBLE-CHARGED.—A good story is told of one George Shaffer, who, many years ago, lived at Portsmouth. He had once been out shooting, and was coming home with his game-bag empty and weary, when he stopped at the toll-house for a moment's rest. "There's a fine lot of ducks back here in the pond," said he to the toll-keeper. "What will you let me fire into them for?" "Can't do it," responded the toll-keeper; "I don't want to have my ducks killed." George put his gun in the toll-house, and walked back to take another look at the ducks. When he was gone, the toll-man, who was a wag, drew the shot from the barrel, and then replaced the gun. George returned, and renewed the question. "Well," said the toll-man, "though you are a good shot, I don't believe you can hurt them much. Give me your money, and you may fire." The money was paid, and quite a party, who had gathered round, went back to witness George's discomfiture. He raised his gun, fired and killed nine of them. "Bless me!" cried the toll-man; "I took the charge out of your gun." "Yes," said George, "I supposed you would. I always go double-charged."

A SALT-WATER LORD CHANCELLOR.—A pleasant story is told of a conversation between two sailors who saw the Lord High Chancellor of Great Britain climbing up the side of his yacht in a marine jacket and trousers. "I think, Jack," said the sailor, as he turned a knowing look to his messmate, "this is the first time one ever saw a *short Chancery suit*."—*Court Journal*.

"GRANDMA," said an intelligent but crafty child, "do you want some candy?" "Yes, dear, I should like some." "Then go to the shop and buy me some, and I will give you a part."

THE first suggestion of Thackeray's opinions on the Georges, appeared in *Punch* several years before the delivery of the lectures. It was at the time their statues were prepared for the new parliament palace. "We have been favored," said the periodical, "by a young lady connected with the Court, with copies of the inscriptions which are to be engraven under the images of those Stars of Brunswick." They were all sufficiently satirical; but the severity lay in the truth. The first and the last were the most pointed. This was for

GEORGE THE FIRST—STAR OF BRUNSWICK.

He preferred Hanover to England,
He preferred two hideous Mistresses to a beautiful and innocent
Wife.

He hated Arts and despised Literature;
But He liked train-oil in his salads,
And gave an enlightened patronage to bad oysters,
And he had Walpole as a Minister;
Consistent in his Preference for every kind of Corruption.

The inscription for George IV is one of the most pointed satires of its class ever written:

GEORGIUS ULTIMUS.

He left an example for age and for youth to avoid,
He never acted well by Man or Woman,
And was as false to his Mistress as to his Wife,
He deserted his Friends and his Principles,
He was so ignorant that he could scarcely spell;
But he had some skill in Cutting out Coats,
And an undeniable Taste for Cookery.
He built the Palaces of Brighton and Buckingham,
And for these qualities and Proofs of Genius,
An admiring Aristocracy
Christened him the "First Gentleman in Europe."
Friends, respect the KING whose Statue is here,
And the generous Aristocracy who admired him.

THE following letter has been received by the Principal of a public school in England, in reply to a circular asking the opinion of the parents upon the practice of flogging:

"DEAR SIR: Your flogging sirklar is duly received, I hopes as to my sun John you will flog him jus so often as you like. Hees a bad boy is John. Althouth I've been in the habit of teeling him myself, it seems to me he will larn nothing—his spellin is spesiall otragrusly deficient. Wallup him well, Sur, and you will receive my hearty thanks.—Yours, Moses Walker, P. S.—Wat accounts for John being sich a bad scollar is that he's my sun by my wife's first husband."

A SINGULAR method was employed by the wits of a certain epoch to cke out their intellectual store; not only did they put their good things into verse, but they cast about for some place to write them in or upon, which should be itself significant, as thus:

[Written on a looking-glass.]

I change, and so do women too;
But I reflect—which women never do.

To which a lady is said to have replied:

If woman reflected, O scribbler, declare
What man—faithless man—would be blessed by the fair.

HOW TO GET RID OF TROUBLE.—"To shake off trouble," said Howard, the great Philanthropist, "we must set about doing good to somebody; put on your hat and go and visit the poor; inquire into their wants, and administer unto them; seek out the desolate and oppressed, and tell them of the consolation of religion. I have often tried this, and found it the best medicine for a heavy heart."

A DEBATING CLUB in Worcester lately discussed the important question: "Whether a rooster's knowledge of daybreak is the result of observation or instinct."



Notes on the Weather from January 15th to February 15th, 1864.

The last half of January was as much warmer as the first half was colder, so that the mean was 25.6° for the month, while 25.7° was the average for 28th January. The noon of the 28th was 56°, and the cold of the 21st was 9°—the extremes of the last half. In January, 1857, the coldest last half known here was 15°, and this year was 32.6° for the last half. Rather pleasant two weeks. The water was 2.91 inches. Barometer low, the mean being 29.19.

The sleighing had been good for several days, but left us on the 24th. The wheeling then good.

On the 20th and 21st a slight ice shower was on the trees and shrubs, so as to show many diamonds and some fine prismatic colors.

The mean temperature and other results for 1863 were given in the last *Farmer*. The *Times*, of London, gives the average heat there for 1863 as 49.4°, and for the last fifty-three years as 48.5°; the greatest heat of the six years, 92.2°, in June, 1858, and the coldest in December, 1859, as 7° below zero. The morning of January 2d was below cypher here, when at London it was 29°. Since 1843 the greatest cold at London was 8° below.

Though we have much of the abounding rainy weather in Southern England, much less rain falls there in a year than here. There the rain for 1863 was 13 inches—very small—but here it was 30 inches. There the average rain is 24 or 25 inches—here it is 32 inches; and there the monthly average rain for twenty years past is: for January, 1.9; February, 1.4; March, 1.4; April, 1.8; May, 2.0; June, 2.6; July, 2.4; August, 3.0; September, 2.6; October, 2.7; November, 2.0; and December 1.9 inches;—25.7 inches. In 1860 the rain there was 32.5 inches; 1858 was 18.9 inches.

February.—The first half has been warm, and its mean is 30.1°, while the general average is 26.2°—a difference of 4°. Last year it was 3° below the average. In 1855 the mean for this half was 14.8°, and 14.5° in 1856. No snow for sleighing in this half; sleighing in Niagara county for a few days. Rather pleasant weather.

The mean of barometer was 29.19, which is low. Little water fallen—only 0.51 inch.

The buds of the peach trees are said to be injured by the cold of the first week of January. It was severe weather. The preceding warm month had swollen the buds somewhat, and made them less able to endure a cold no greater than 4° below cypher.

THE Sixth Annual Meeting of the Breeders of Thoroughbred Neat Stock will be held at Worcester, Mass., on Wednesday, March 2d, at 10 A. M.

"Send for a Catalogue."

We cannot call particular attention to all the good things advertised in this number of the *Genesee Farmer*. We would cheerfully do so did our space permit. We would, however, urge our readers who wish to purchase trees, seeds, implements, machines, or any other article, to send to the parties who advertise in the *Farmer* for one of their catalogues. We believe you may deal with any of them with confidence.

We do not know how it is with others, but we should be at a loss how to get along without the catalogues of our leading nurserymen, seedsmen and agricultural implement makers. Such catalogues as those issued every year by Ellwanger & Barry, Frost & Co., C. W. Seelye, and other of our Rochester Nurserymen are invaluable. We should hardly know what vegetables to raise if it was not for the kind remembrance of our friends, Thornburn & Co., of New York, who each spring send us one of their valuable and *reliable* seed catalogues. Then if you want flowers—and who does not?—send to B. K. Bliss, of Springfield, Mass., or to James Vick, of this city, for one of their handsome illustrated catalogues. Either of them are well worth half a dollar to any one who will study them, and yet they are sent free to all who enclose a stamp to pre-pay postage. The same may be said of other parties whose advertisement will be found in the *Farmer* this month.

Take our advice. Send for these catalogues, and when you have examined them forward your orders early, so that when spring opens you will be ready.

Cash, Book and Seed Premiums.

THE press of advertisements this month is so great that we are compelled to omit our premium list. It will be found on the last page of the February number. We would again remind our friends that a copy of the *Rural Annual* for 1864, is sent to any one who gets up a club of six subscribers to the *Farmer*, at fifty cents each. For a club of eight we send a copy of Miner's Domestic Poultry Book. For a club of twelve, a copy of the Manual of Agriculture (a most excellent work). For a club of sixteen a dollar package of choice flower and vegetable seeds, and an extra copy of the *Farmer* and *Rural Annual*, for 1864. Larger premiums are offered for larger clubs.

The seeds will be ready in the course of a week or ten days, and if any who are entitled to them do not receive them promptly, we should *esteem it a favor* if they will inform us of the fact, when the seeds shall be sent at once.

A Last Word.

THE time for competing for our Cash Prizes expires on the 15th of March. Our agents should send in all the names they can get, on or before that day. Many doubtless will take a prize that do not expect it. Our specific premiums are still continued. It is by no means too late to get subscribers. As we stereotype the *Farmer* the numbers from the commencement of the volume, will be sent to all who subscribe at this time. Send in the names!

Inquiries and Answers.

H. J. R., *Vernon, Iowa*.—1. Do not Pears do well grafted on thorns? 2. How many ashes is it good to put around young apple trees? 3. Are ashes good for Carrots? 4. What is the best way to grow grape vines from cuttings? 5. Can the Delaware cutting be grown the same as other grape cuttings?

1. No. They will grow for a few years, but never do well.

2. If the object is to prevent the attack of the borers, leached ashes should be used, and just enough to encircle the tree, immediately below the surface of the ground.

If the question is intended to refer to the use of ashes as a manure, we should say that a considerable quantity of leached ashes may be used without injury to the trees, but with what benefit must be determined by individual experience; we should not recommend them generally as a valuable manure for apple trees.

3. Do not know that they are.

4. Cuttings will do best if made and planted in the fall. When this is not done the cuttings should either be buried in the ground in a dry place, in such a way that they will be entirely covered with soil, or packed away in sand or soil in the cellar until spring, and then planted in a slanting position, so that the upper eye of the cuttings shall be at or just below the surface of the ground.

5. Yes.

CRANBERRIES.—(H. M., *Eden, N. Y.*)—Please to communicate to me and others, through the *Farmer*, whether cranberries can be grown by planting the seed, and if so, when, and how should they be planted?

The cranberry can be propagated readily by planting the seed, or crushed fruit in hills or drills, or sowing them broadcast and harrowing in. By this mode of propagating, however, a longer time will elapse before a crop of fruit can be gathered, than when the vines are planted. And, of course, much care and labor will be necessary to cultivate and keep the ground free from grass and weeds in the meantime. Another objection to growing from seed is, that a number of varieties will be produced, all of which are not equally productive, and the result will be smaller crops, than if the ground were uniformly planted with the most fruitful sort. Good plants can readily be procured, and at the rate of five dollars a thousand, and when a considerable quantity is wanted, probably for much less. It is suitable to plant them in hills, two or three plants in each, at a distance of two feet from hill to hill, and the rows about two and a half feet apart. About twenty-five thousand plants at this rate would be required to the acre. For marsh or swamp culture the Cherry variety is considered the best, and for upland culture the Bell variety.

I was much pleased with your notes in the August number of the *Genesee Farmer* for last year of a day's ramble in the wheat fields and among the farmers, giving a short description of the method pursued by several of the best farmers in Old Monroe. I wish we could have more of these notes. I was much interested in Mr. Sackett's success in raising lambs for the butcher. Will he be so kind as to give us a description, through the *Farmer*, of his method of keeping sheep, feeding &c. I doubt not it would be instructive to all the readers of the *Farmer* who are interested in sheep.—CHAS. AYER, *Lewisston, N. Y.*

On the 10th page of the *Rural Annual and Horticultural Directory*, for 1864, it says that lime will "destroy worms and the larvæ of insects." I have a garden that has been cultivated many years, and during the two last years, the ground was well stocked with worms. Some cut the beans off as soon as they came up, and, if perchance a poor bean survived this first onslaught, it was only to drag out a miserable existence on account of the constant gnawing which it received at the roots. What I desire to know is the *time* when the lime should be put on. Is it before plowing, after plowing, or after harrowing?—A. A. K.

It was doubtless the cut-worm that destroyed your beans. We do not know whether lime will destroy them. If you apply the lime this spring, let it be done as early as possible. Use it liberally, say at the rate of two bushels to the square rod, and dig or plow it under.

J. K. C., *Geneva, Wis.*—Some of the best varieties of pears ripening after the Flemish Beauty, are Sheldon, Urbaniste, Duchesse d'Orleans, Beurre d'Anjou, Beurre Diel, Beurre d'Arenberg, Columbia, Doyenne d'Alencon, Glout Moreceau, Josephine de Malines, Lawrence, Vicar of Winkfield, Winter Nelis.

P. G., *Eden Garden*.—A practical work on this subject is entitled *How to Build and Ventilate Hot House Graperies, &c., &c.*, by Robert B. Leuchars.

PLEASE give me the address of men that make it their business of breeding horses, in the Western and Central part of your State. Is there any "Messenger's" stock in your part of the State? I wish to get some of that breed. Do you know where the Thoroughbred Stallion "Wild Irishman," is owned, or any of his colts?—A. P. GARFIELD, *Milbury, Mass.*

THERE is no one in my neighborhood that can raise any gooseberries. They all mildew when about half-grown, and the bushes seem to be blighted on the top of the branches and grow no more for the season, consequently the bushes keep quite stunted. Can you give me any information respecting the treatment of them?—BENJ. ARMSTRONG.

AT what stage of its growth should Herd's grass be cut for the hay to contain the most saccharine properties, and the best *modus operandi* to make it from the swath, taking the economy of labor into the account?—L. P. L., *Tioga county.*

WILL timothy and clover "catch" good with flax? Who has tried it? Will they please communicate their experience through the *Genesee Farmer*?—JOHN SCOTT, *Newfane, N. Y.*

TICKS ON SHEEP—SCAB, &c.—In reply to the inquiry of "W. A. B." in the February number of the *Genesee Farmer*, Messrs. Lalor & Brothers, of Utica, N. Y., write us that their sheep-dipping composition, advertised in this number of the *Farmer*, is just the thing he wants. From what we hear of it we judge it to be an excellent article. Send for one of their circulars.

VALUABLE AND CONVENIENT.—"Brown's Bronchial Troches" are widely known as an admirable remedy for Bronchitis, Hoarseness, Coughs and other troubles of the throat and lungs. They are of great value for the purposes for which they are designed, and it should be known that while they are usually and pleasantly efficacious, they contain no hurtful ingredients, but may at all times be used with perfect safety.—*Boston Recorder.*

The Markets.

OFFICE OF THE GENESEE FARMER, }
February 26, 1864. }

THERE has been little change in the price of grain since our last report. Beans are if anything a trifle lower in New York, but have advanced in the West. Butter continues very firm. The supply is small and it is thought that the present high rates will be maintained for some time. The range in New York is from 25 to 40c, according to quality. Eggs are lower, but still bring in New York from 25 to 30c. $\frac{1}{2}$ dozen. Poultry has advanced 3 to 5c. $\frac{1}{2}$ lb. Turkeys bring from 15 to 18c, and choice 19 to 20c. $\frac{1}{2}$ lb. Chickens 15@18c. Potatoes are unchanged. Cheese is full 1c. $\frac{1}{2}$ lb. higher. Clover and Timothy Seed are higher. In this city \$7.75 $\frac{1}{2}$ bushel is asked for Cloverseed. In New York it is quoted at 14 $\frac{1}{2}$ @14 $\frac{1}{2}$ c. $\frac{1}{2}$ lb., and Timothy at \$3.20@3.50 $\frac{1}{2}$ bushel.

The English markets are dull and lower. The Germans have crossed the Elder and hostilities have actually commenced. The news caused Wheat to advance in Paris 12@50c. $\frac{1}{2}$ 100 lbs. Next to America, England looks to Northern Germany for her chief supply of grain, and a war in Holstein, if it goes no further, will materially interfere with the trade of the British ports and prevent England from obtaining the supplies necessary to finish the agricultural year. The last Mark-Lane Express says: "Come war or peace, the necessities of consumers will require about sixteen million quarters of Wheat (eighty million bushels) before next harvest; while war might put half as many sovereigns into grower's pockets without the public having to complain of the price of bread." There is every prospect of American farmers receiving very high prices for their products the coming autumn.

NEW YORK CATTLE MARKET.—Beef Cattle advanced last week in New York nearly 1c. $\frac{1}{2}$ lb. Some prime holiday Cattle brought 16 $\frac{1}{2}$ c. $\frac{1}{2}$ lb. for the carcass. The Tribune says some of the oldest Cattle Brokers express the opinion that beef was higher than they had ever before known. The highest markets during the last ten years were:

May 9, 1855,	13 $\frac{1}{2}$ @15c. $\frac{1}{2}$ lb.
May 16, 1855,	12 $\frac{1}{2}$ @15c. $\frac{1}{2}$ lb.
May 23, 1855,	12 $\frac{1}{2}$ @14 $\frac{1}{2}$ c. $\frac{1}{2}$ lb.
May 29, 1857,	12—@14 $\frac{1}{2}$ c. $\frac{1}{2}$ lb.
June 3, 1857,	12—@14 $\frac{1}{2}$ c. $\frac{1}{2}$ lb.

We are indebted to Mr. Solon Robinson, Agricultural Editor of the Tribune, for tables showing the weekly price of Cattle for the last ten years. It appears from these tables that, notwithstanding the general opinion to the contrary, Beef Cattle were not as high last year, on the average, as in 1855, 1856, and 1857. In 1854, the average estimated price was 9c. $\frac{1}{2}$ lb.; 1855, 10c.; 1856, 9 $\frac{1}{2}$ c.; 1857, 10 $\frac{1}{2}$ c.; 1858, 8 $\frac{1}{2}$ c.; 1859, 9c.; 1860, 8c.; 1861, 7 $\frac{3}{4}$ c.; 1862 7 $\frac{1}{2}$ c.; 1863, 9 $\frac{1}{4}$ c.

Mr. R. thinks the high price last week was caused mainly by speculation. He thinks there is no scarcity of Beef Cattle in the country and that the advance in prices the past week will call out a larger supply and prices will decline. [Since writing the above we learn by telegraph that Beef Cattle were full as high this week in New York as last. There was a fair supply of Beeves, but they were in the hands of speculators, and butchers were compelled to pay very high prices.]

There is little change in the price of Sheep. Mutton sells at wholesale in Washington Street Market at 7@9c. $\frac{1}{2}$ lb. Polts are dull at about \$3.50 each. There is a large supply of Sheep in the country, but it is not improbable that we shall see high prices in March, as was the case last year. Butchers will now pay 8 $\frac{1}{2}$ c. $\frac{1}{2}$ lb., live weight, for good fat Sheep, though the majority are sold at 7@8c.

Swine are very high—higher than for many years. The demand is largely in advance of the supply. Prices range from 8 to 9c. $\frac{1}{2}$ lb., live weight, or from 10 $\frac{1}{2}$ to 11 $\frac{1}{2}$ c., dressed.

Milch Cows are in demand and prices have decidedly an upward tendency.

Special Notices.

Coe's Superphosphate of Lime.

DANVILLE, TP., SHIPTON, C. E., 1st Dec., 1863.

DEAR SIR: I was induced this spring to make a trial of your Superphosphate of Lime, and the results were, upon the whole, so very satisfactory, that I have thought well to inform you of the fact, in hope that it may encourage others to begin the use of it.

I experimented upon the following crops:—Potatoes, Mangold Wurzel, Carrots, Turnips, Tares, and Wheat.

I had two pieces of ground planted to Potatoes, one in my orchard, which had been well manured with barn-yard manure—plowed in—both this spring and the previous, and the Potatoes planted in hills three feet apart. These were planted a fortnight before the others, which were in the field, planted in drills thirty inches apart and twelve inches between each "sett." Those in the orchard were hand-hoeed three times, those in the field once by hand and once by "horse-hoe." The field potatoes were manured in the drill, and Superphosphate, at the rate of a barrel and a half per acre, sprinkled upon it previous to its being covered, the potatoes (cut) being planted on the manure. These potatoes made their appearance above ground a week before the others, although two weeks later in being planted. They kept ahead of them all through the season, and were quite ripe at least three weeks before the others. There was scarcely any disease amongst them, whilst a good number of the orchard potatoes were affected. The exact results were not obtained, but I am safe in saying that those planted with Superphosphate produced a third more than the others. Both crops were excellent, and were at the rate of three hundred bushels to an acre (Imperial). With my Turnips the effects were even more striking. I planted them in drills, part with Superphosphate and manure, part with best Peruvian Guano and manure, and part with manure alone. The Guano was obtained from C. L. Bartlett, Boston, and was good. The result was no perceptible difference between the turnips treated with Superphosphate and those treated with Guano, (the Guano was just double the price of the Superphosphate) whilst that treated with manure alone was not one-half so good as either. I did not weigh any of the turnips, but had them inspected by many good judges who agree with this view of the case. The same quantity of Superphosphate and Guano was used—(about two barrels per acre)—and there was this remarkable feature in the case: the turnips treated with Guano were attacked with "rust," and ended by rotting to a considerable extent. Whether this was caused by the Guano or not I cannot tell. The others continued fresh and healthy until they were lifted. I shall use no more Guano. The effects upon the Carrots I cannot give, as they were too late in being planted, and proved nearly a failure. The Mangolds were good, but they too, were put in too late. The Tares were very much improved by the application of Superphosphate, but there was only a small piece of them. I consider it doubled the crop. I cannot speak with any certainty of its effects upon the Wheat, as the crop was nearly destroyed by wet during early summer.

I believe the experiment made upon my place has fully convinced numbers around of the great advantages to be derived from its use. I shall certainly continue to use it in future, probably more extensively than this spring. I used about twenty-two hundred pounds in all. I think the article had not the chance it might have had, if the land had been drained.

I hope that your enterprise in the manufacture of this article may meet with the success it deserves.

Your are at liberty to use this letter, or the contents, if you think proper.

I am, yours truly,

G. THORBURN.

Sold by Andrew Coe, proprietor, 38 Francois Xavier street, Montreal; 8 Masonic Hall, Toronto, and by agents in all of the principal towns in Canada.

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A MONTHLY JOURNAL OF AGRICULTURE AND HORTICULTURE.

Published at Rochester, N. Y., by

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Will find them beneficial in clearing the voice before speaking or singing, and relieving the throat after any unusual exertion of the vocal organs, having a peculiar adaptation to affections which disturb the organs of speech.

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NEW SEED of this valuable early variety at 25 cents per packet, or 50 cents per ounce. Less per pound.
Also new Seed of the

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Geneva Nursery, Geneva, N. Y.

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BE SURE AND GET THE BEST.

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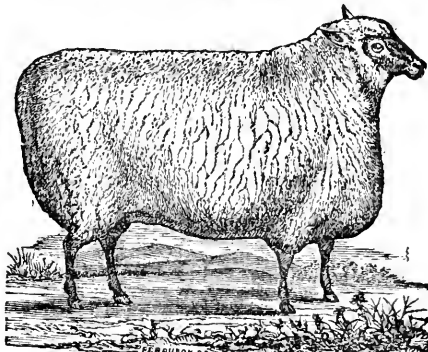
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1864. THE 1864. GARDENER'S MONTHLY,

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feb2t

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FAMILY SOAP MAKER.

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FOR SPRING OF 1864.

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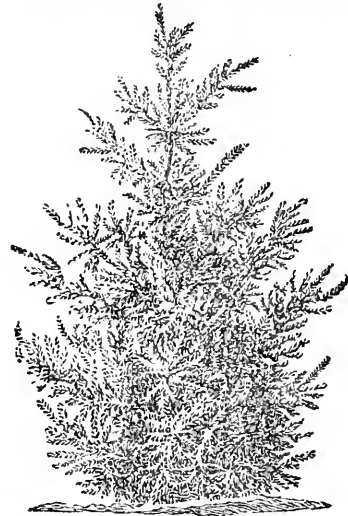
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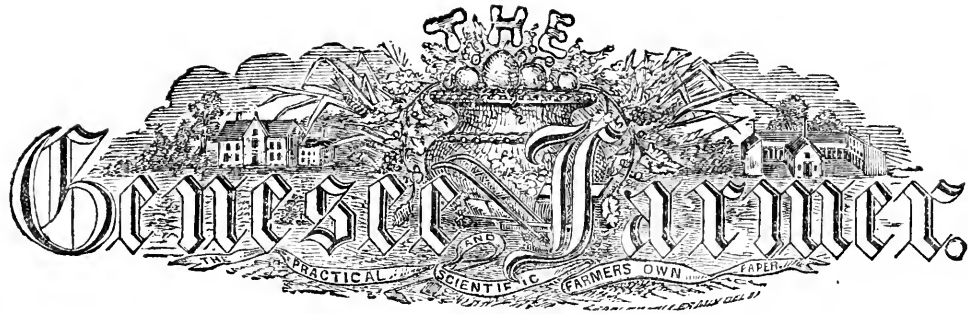
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DIANA, 1 year cuttings, 25 cents each; \$30 per 100.
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able price, should send their orders to the Brooklyn Nursery.
Catalogues sent free to all applicants.
Address, ANDREW S. FULLER,
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mh 2t,



WALKS AND TALKS ON THE FARM.—NO. 4.

THE spring, so far, has been remarkably mild and pleasant. A gentleman near New York, writes that he was plowing the first week in February. He is now (March 10th) busy at work preparing the land for onions and other crops. The season there is at least three weeks earlier than with us.

A farmer in Niagara county wrote me a few days since, asking if the "pea-vine clover" was better for pasture as well as for plowing under as a grass crop to enrich the land, than the small kind of clover. I should myself like more information on this subject. I do not know whether it is a distinct variety or not. Our agricultural authorities say little or nothing on the point. FLINT, in his excellent work on "Grasses and Forage Plants," does not allude to it at all. MORRIS'S *Cyclopedia of Agriculture*, one of the best and latest works we have—containing over 2000 pages, filled with the most reliable information—says nothing about it. I can find no allusion to it in Loudon's *Encyclopedia of Agriculture*, and it is not worth while to examine other works, for nearly all our modern writers derive their information from him.

But there is such a thing as late or large clover, or as my friend from Niagara county calls it, "pea-vine clover." It is grown to some extent in this vicinity, and will unquestionably produce more fodder than the common red clover. For plowing under as manure it is also superior. The only drawback is the difficulty of getting the seed. I suppose, ripening later, it does not yield so much seed, or perhaps is more liable to injury. I wish some of the readers of the *Genesee Farmer* would write a good article on the subject.

As a general rule, those farmers are most successful who keep on the even tenor of their way. If you are raising horses, do not give it up. The prospects in the future are at least as good as in the past. If you are raising cattle do not abandon the business for the sake of raising colts, or sheep, or any other stock. Stick to the business you understand, and do

not give it up because, for the moment, some other branch appears to offer greater or more immediate profit.

I was talking to a cavalry officer a short time since, in regard to the supply of horses. He said that when he first entered the army the loss of horses was frightful. This he attributed principally to exposure, neglect and bad treatment. There has been, however, much improvement in the treatment of our army horses, and the fatality is by no means as great as it was. Still the demand for horses is quite large, and I notice that the editor of the *American Stock Journal* thinks that if the war continues another year we shall be obliged to resort to foreign countries for a supply. I think *men* will be scarcer than horses. The number of horses in the United States in proportion to population is greater than in any other country, and I do not think the government will experience any great trouble in finding all that are required for army purposes. There can be no doubt, however, that if the war continues horses will advance in price, but whether it will pay farmers to rush into the business of raising colts, is somewhat doubtful, as by the time the horses are ready the demand will probably be less than at present.

In everything that relates to the mechanical operations of Agriculture the United States will not suffer by comparison with any other nation. The same is also true in regard to the amount of grain, meat and other products obtained from a given amount of labor. In no other country does the husbandman meet with a more bountiful return for the labor expended. But while this is true, our agriculture is, in very many respects, sadly deficient. The average yield of our crops is *very low*. This is owing to several causes, prominent among which stand the two facts which give color to American agriculture, *cheap land* and *HIGH LABOR*.

We have extended our labor over too great a surface. Owing to the increase of population, our farms, in nearly all sections, are constantly advancing in price, and it has been considered desirable to hold as much land as possible so as to obtain the

benefit of this advance. The tendency of this speculative feeling is not favorable to agricultural improvement. The farmer holds more land than he has capital to cultivate to the best advantage, and the feeling that he may sell at any time checks the desire that every *real* farmer feels to make permanent improvements on his farm.

I received to-day, from Mr. W. L. Bradley of Boston, a barrel of his "Patent Tobacco Fertilizer," with a request that I give it a trial. I do not propose to raise any tobacco, but will use it on other crops. Mr. B. publishes a pamphlet on Tobacco Culture, with testimonials from several well known tobacco growers who used his fertilizer last year. Those interested in the matter can obtain this pamphlet free by writing to Mr. Bradley at Boston. Mr. Bradley also manufactures Coe's Superphosphate of Lime, which I know to be a good article. I intend to use two tons of it this season.

No crop paid so well last year as onions. The crop was large, but the demand for the army is so great that high prices were obtained. The demand is likely to continue, and there will undoubtedly be an unusually large breadth of land sown the present spring.

A gentleman in Washington wrote me to-day, asking for information in regard to the best varieties and the best method of cultivating onions. Not having had much experience in raising the crop for market purposes, I asked one of our most successful onion growers to write an article on the subject for the *Farmer*. He referred me to a Prize Essay written for the Transactions of the Queens County (N. Y.) Agricultural Society, by D. K. Youngs of Locust Valley, and which he said was better than anything he could write on the subject. Mr. Young says the best variety for the main crop is the red, globe-shaped onion. The earliest variety is the flat, or "Cracker onion," which ripens three weeks or a month earlier than the late red onion. There is a variety which comes to maturity between these two, but he does not give the name. Large cultivators sow these three varieties in the proportion of one acre of the first early, two acres of the second early and five acres of the late.

I always supposed onions liked a rather stiff loam—or what we usually denominate a good wheat soil, but Mr. Young says that though onions may be grown from seed on most kinds of soil, he prefers "an easy working sandy loam, such as is not liable to bake, and free from stones." "In order to insure a crop the first year," he says, "it should have been well manured and kept clean for one or two previous seasons."

The ground should be liberally dressed with well rotted manure. This should not be plowed in deep,

but be thoroughly incorporated with about five inches of the surface soil. Mr. Young says the roots of onions penetrate to the depth of fourteen inches or more, and he recommends the use of the subsoil plow to deepen the soil.

"As it is highly desirable to plant early, plow as soon as the state of the ground will permit, and harrow thoroughly; use a brush harrow to break the lumps and smooth the harrow marks; lay off in beds twenty-five yards wide and *rake even and fine*. This last is very important.

"If the object is to raise only barrel or bushel onions, the beds should be marked for rows thirteen inches apart, with any instrument at hand. A rude and cheap, but convenient marker is made of pine plank two by three inches, with pins six inches long inserted thirteen inches apart."

Four pounds of seed will be sufficient for an acre. This will give about ten seeds to the foot. Drill in the seed about half an inch deep, and then roll the land with a light garden roller to leave the surface as smooth as possible for the first hoeing.

"As soon as the rows can be traced, work out with a skuffle hoe, and commence weeding a few days after, or as soon as any can be found in the rows. To keep the beds at all times clean, which is by far the cheapest and best way, this should be repeated about every ten days, till the tops begin to fall, which will require one tolerably active man to a moderately weedy acre."

The labor of harvesting and drying is by no means inconsiderable. Mr. Young recommends the erection of a house on purpose for the latter process. This of course is only necessary when onions are raised on an extensive scale.

Mr. Young does not give the yield per acre, but I suppose from four to five hundred bushels per acre is a good crop. At one dollar per bushel, or even at half a dollar, the profits must be large. I see that onions are now worth over two dollars a bushel in New York.

Mr. Young is going to sow seventeen acres of onions this spring. He says, in a private letter to a friend in this county, that he will put on these seventeen acres New York stable manure, at a cost of \$1,400 delivered at the wharf near his farm. This is over \$82 per acre for manure, besides drawing and spreading.

If I was going into onion raising, I would use artificial manure, such as guano, superphosphate, sulphate of ammonia, &c. They are free from weeds, and \$15 per acre would give a liberal dressing.

About a year ago I wrote an article on "Feeding Cattle and Sheep" for the Report of the Department of Agriculture. I desired to make as good a show as possible in favor of fattening cattle, but was obliged

to admit that the profits are not very large. In fact, if we leave out the value of the manure, and allow nothing for the increased value of fat over lean beef, it is impossible to see how money can be made by feeding cattle in winter.

Taking the average results of the most reliable experiments on feeding cattle, where we have good breeds, good yards and sheds, and the best of attention, a bullock will eat 100 lbs. of hay and a bushel of corn per week, and will gain 10 lbs. In five months he would eat one ton of hay and 20 bushels of corn. Estimating the hay at \$10 per ton and the corn at 60 cents per bushel, the food consumed in the twenty weeks would cost \$22.00. In return for this we have 200 lbs. of beef, worth say eight cents per lb., or \$16.00. In other words the food will cost \$6 more than what we can get for the increase in beef. As an offset to this loss we have the manure.

One would think this was not by any means an overdrawn statement of the profits of feeding cattle in winter, but SOLON ROBINSON, of the New York *Tribune*, says in the last number of that paper that there is a "vital error" in the above estimate—that "the gain is gross and not net weight, and nowhere in this country are bullocks worth 8 cents per lb., live weight. The average on the farm is not 4 cents."

The whole question turns on what the increase of the animal consists of. If it is principally bone, hair, horn, or offal of any kind, it would be worth very little, and if the proportion of these substances was as large in the increase as in the animal itself it should, as Mr. ROBINSON says, be estimated as gross and not net weight. But is this the case? Mr. Lawes and Dr. Gilbert analyzed several animals for the purpose (among other things) of determining this very point. They killed a calf and ascertained how much bone, offal, fat, meat, water, &c., &c., it contained, as well as the amount of nitrogen, potash, &c. They also killed a "half-fat" ox, a "fat" and a "very fat" one, and were thus enabled to ascertain the nature of the increase. They experimented on a great many cattle, sheep and pigs. Their plan was to select two as near the same weight and condition as possible, kill one and analyze it and fat the other for five or six months, ascertain how much it had increased in weight, and then by killing and analyzing it, determine what the increase consisted of. As the result of their experiments they found that the increase of a bullock for at least five or six months before it was killed, consisted of:

Dry fat.....	66.20	per cent.
Dry Nitrogenous Compounds.....	7.67	" "
Mineral Matter.....	1.47	" "
Water.....	24.66	" "
	100.00	

Now, does any one suppose that 8 cents per lb. is too high an estimate for such meat? It would, I

think, have been a "vital error" to have estimated the increase of an animal at the same price per lb. as the entire animal with all its bone, hair, hoof and other offal. The increase contains very little of these matters. It consists principally of fat and flesh—and that of the very highest quality.

What is the composition of a bullock as it stands? Messrs. Lawes and Gilbert analyzed eight bullocks which were "half-fat," "fat" and "very fat." The average composition of these eight bullocks, calculated on "fasted live-weight," was as follows:

Fat.....	29.90	per cent.
Dry Nitrogenous Compounds.....	13.30	" "
Mineral Matter.....	3.23	" "
Contents of Stomach and Intestines.....	6.26	" "
Water.....	47.31	" "
	100.00	

The increase contains as much again fat as the gross animal, and only half as much water and mineral matter.

I think the increase is worth more than the same weight of carcass. The average composition of the carcasses of the above eight bullocks, including kidney fat, &c., was as follows:

Fat.....	36.50	per cent.
Dry Nitrogenous Compounds.....	13.30	" "
Mineral Matter.....	3.75	" "
Water.....	46.45	" "
	100.00	

These figures embody the result of years of laborious and careful investigation. They undoubtedly approximate closely to the truth. They show that our butchers are wise in paying more for fat cattle than for lean or half-fat ones.

I received a letter to-day from Mr. P. Manny of Freeport, Ill., the inventor of the Manny Reaper. He says: "Allow me to make an inquiry in regard to a Wheat Growers' Convention, of which I have understood you were President. Is there such an organization, and has it held a convention?"

Mr. Manny evidently refers to the "International Wheat Show" held at Rochester last year. The object was to bring together some of the best varieties of wheat from different sections of the United States and Canada. Large premiums were offered and we had some excellent samples of wheat, but not as many as was anticipated. I hope we shall have another show this season. Mr. Manny says: "If you have such an organization started I hope you will not let it fail. I believe great benefit may result from it. I will contribute my mite towards sustaining it. I will give two of my best machines; one for the greatest improvement made by cultivation in the quality of fall wheat, and one for the greatest improvement in the quality of spring wheat." This is a liberal offer, and I hope it will attract the notice it deserves.

A short time ago a gentleman in this State, wrote

me objecting to the space devoted in the *Farmer* to the cultivation of tobacco. On the other hand a Canadian farmer writes me this morning as follows:

"Have you nothing to say on the subject of tobacco? If yourself or some of your correspondents do not write or preach on the text soon, I shall be compelled to do so in my own defense. The article is becoming rather extensively grown in this locality, and *it can be grown successfully*. What we are most at a loss for, is how to cure it. I am a grower on a small scale myself, and am quite satisfied that an article can be produced here that will compare favorably with that which is imported."

There can be no doubt that at present prices tobacco can be grown with much profit. Those who wish for information in regard to its cultivation will find it in the last volume of the *Genesee Farmer*.

"Shall we Keep Sheep or Cows?" was the heading of an article I wrote in the *Genesee Farmer* for March, 1863. I advised farmers to pay more attention to dairying. Everybody was rushing into sheep raising, while cows were comparatively neglected; and the result has been as I predicted.

Sheep are now lower and cows much higher than they were a year ago. It is difficult to get good cows at any price. Butter is worth 35 cents at retail in the city, and one of the most prominent buyers told a friend of mine yesterday, that he thought it would go up to 50 cents per pound before spring butter came in. Choice Orange county butter sold, last week, in New York, at wholesale, for 48 cents per pound! The numerous "Cheese Factories" established in the dairy districts of the State are causing many who have hitherto confined themselves to the production of butter, to sell their milk. The result will be the increased production of cheese and a consequent reduction in the amount of butter. In the southern tier counties in this State, where butter has been almost exclusively manufactured, "Cheese Factories" are being erected. A friend of mine in Chemung county, recently sold his farm for \$100 per acre to a company who propose to erect one of these "cheese factories." As soon as the war ends, and gold falls to its par value, these cheese factories will see "hard times." Cheese is now worth 16 cents per pound. But with gold at 160, this 16 cents is only equal to 10 cents. The extra 6 cents a pound is *entirely fictitious*. It is amusing to hear the present high price of cheese ascribed to the improvement which has been made in the quality of the cheese. It is due simply to the fact that the cheese is sent to Europe and gold is obtained for it, and 10 cents of gold is equal to 16 cents of our paper money. The same is true in regard to butter—and of every thing else that we export. We get gold for it; and the

higher the price of gold, the higher the price of produce. Cheese will continue high as long as gold is at a premium, but I think butter will be proportionately higher than cheese, because many who have hitherto made butter will go into the cheese business.

I made some such remarks as the above to Mr. Davis, who has a farm of 190 acres four miles west of here. "Sheep will pay as well as cows," said he, "and I hate to milk cows." A year ago last fall he had a flock of 240 sheep. He sold 50 wethers in January at \$5.00 a head, and if he had kept them two weeks longer could have got \$7.00. He raised 205 lambs in the spring. The wool and what lambs he sold brought \$1100, and he had a flock of 211 sheep left in the fall. In other words, his flock paid him over \$1000 during the year.

Mr. Davis is in the habit of raising oats and peas, sown together, for his sheep, and likes them very much. He formerly raised Hungarian grass and thought it excellent. He got 16 loads of hay from 4 acres of land, sown in June. But oats and peas he thinks will do even better than this. He sows two bushels of peas and one bushel of oats on an acre, but thinks heavier seeding would be better. A neighbor of his sowed four bushels of this mixture to the acre, and as he worked the farm on shares, he had to thresh out the crop. (Generally the crop is fed out without threshing.) The yield in this case was 80 bushels per acre!

There is nothing that sheep like better than oats and peas in the straw. They will not touch Hungarian grass as long as they can get the oats and peas.

I asked Mr. Davis what I had better do with the south lot this spring. It is rather low land, covered with a thick sod of coarse grass. I intend to drain it, but have hardly time this spring. Hungarian grass, he thinks, would not do well on so tough a sod. Neither would oats and peas. He thinks I had better sow it to oats alone. Sow pretty thick, say at least three bushels per acre, and if they do not ripen very well, they can be cut green, and will make excellent fodder. I have not much faith in any land that needs draining producing a good crop of anything till it is drained.

The Secretary of the Rochester Brick and Tile Manufacturing Company remarked to me the other day, that there would be few tiles sold this year, as labor was so high that farmers could not afford to drain their land. When you have to pay \$20 a month and board, it will not pay to make many permanent improvements. We shall have to wait till these troublous times are past. But if the war

should close to-day there would still be a great demand for labor.

"Beef is wicked," said an old farmer to me last week. Those who have to buy it at present prices will agree with him. The butchers charge 18 cents per pound for beef steak in the city. Last week, beef cattle, in New York, sold for 17 cents per pound!—the highest price ever before obtained in this country. There was a panic in the market. It was thought that there was great danger of a beef famine. The butchers sent men west to buy cattle, and the result was that the market this week (March 16,) was overstocked, and prices fell two cents per pound! Many cattle were sold at from \$10 to \$20 a head less than they would have brought the week before. Working oxen sold at \$160 per pair, that would have brought \$190 to \$200 last week. In some instances the fall was equal to \$25 per head. The New Yorkers are a queer people! They sadly want a balance wheel. There is no necessity for these ups and downs in prices. Beef is down this week two cents per pound, and butter up eight cents! Next week butter will be down and beef up: and so we go!

Sheep, as well as cattle, were largely in excess of the requirements of the market this week. The *Tribune* says: "We have never known as many sheep on sale in one day in March as were in market on Monday, and we have never seen drovers when they felt more as though they were about to be slaughtered." Fat sheep have certainly not advanced so far this spring as much as was expected. Mutton brings a fair price, but is still very much lower than beef. It sells for 8 cents per lb. by the carcass in New York. The great depreciation, as compared with this time last year, is in the price of pelts. They now bring only \$3.00 to \$3.50, against \$4.00 to \$5.50 at this time last year.

In the market report of the *Genesee Farmer* for April, 1863, speaking of the New York market, it is said: "Sheep are again higher—higher than ever before known in this country. They sell for double what they did a year ago. They are worth from 9 to 10 cents per lb. live weight, and 11 cents is talked of! Spring lambs have sold as high as 25 cents a lb. for the meat." Now Sheep are quoted at 7 to 8 1-4 cents per lb. live weight, and lambs 8 to 8 1-2 cents. This is certainly a great falling off in the price of sheep, but nothing more than what was predicted in the *Farmer* a year ago.

THE HOP CROP.—The Inspector General of hops reports the following as the amount of hops inspected in Massachusetts during the past year: First sort 518 bales, 97,800 lbs.; second sort 32 bales, 5,756 lbs.; refuse 30 bales, 5,749 lbs.; total 580 bales, 109,303 lbs. In 1862 the amount inspected was 319 bales, 57,410 lbs.

FARM WORK FOR APRIL.

FENCES.—One of the earliest tasks that can claim the farmer's attention is repairing fences. Systematic managers, whose farms are divided by common rail structures, after having determined about how long they will continue, say six years, divide their whole farm into six parts, and repair a sixth each year—this keeps all in good order without further trouble, and without having too much to attend to one season, and but little another. Board fences should be annually examined throughout their whole length, and loose boards nailed tight. New board fences should never be battened on the face or joints over the posts, as the practice tends to cause decay; but in the course of 15 or 20 years, when the ends begin to rot and become loosened, battens will secure and make them strong for several years longer. If farmers are able to replace their old worm fences with post and rail, board or stone fences, they should begin on one side and construct a certain amount each year, keeping a register of the same. Then, in future years, when repairs are needed, they can go through the same way and in the same number of years.

MEADOWS.—As soon as these are dry enough to bear feet without injury to the turf, they should be carefully picked of all loose projecting stones, which might injure a mowing machine, and then well rolled so as to make the surface as smooth and perfect as possible. Stumps should be dug or pulled out, accidental brush or other rubbish removed, and small hillocks leveled down. The farmer who has seen a mowing machine broken, at a cost of five dollars, and a delay of a day, by a stone that might have been removed in five minutes, will appreciate the importance, comfort and economy of a smooth surface. There is some satisfaction in the reflection that new farm machinery is going to compel the adoption of a smoother and more perfect kind of farming.

Much is lost by the imperfect, thin and uneven seeding of meadows. Bare spots and thin grass, amounting as they very often do to one-fourth of the whole surface, would make a total loss of five acres in every twenty-acre meadow. Sometimes the loss amounts to much more. The importance of thick and even seeding is not sufficiently appreciated. Thin or bare patches in existing meadows may be covered with grass by running over the meadow with a fine-tooth harrow the first day the surface is dry, then sowing a mixture of clover and timothy, and rolling the seed in. If the meadow has been top-dressed with fine manure in autumn or winter, the harrowing will mix it with the surface, and assist the germination of the seed, as well as its subsequent vigorous growth.

Meadows which were top-dressed with coarse manure in autumn or winter, which was more or less spread in lumps, should be harrowed as early as possible so as to break those lumps and spread the whole uniformly. Cattle droppings, on meadows or pastures, should be finely beaten to pieces and well scattered over the surface, as soon as the frost will admit, and before the frost has all disappeared from the soil. It is scarcely necessary to mention that no good farmer ever allows either his meadows or pastures to be touched by a hoof early in spring, while the ground is soft.

TEAMS.—Every good manager has already taken care to have his teams in excellent order for the heavy work of spring—but as they have not been much accustomed to hard and steady work, it would be advisable to plow only half a day at a time with them at first, until they become well accustomed to it, using them the other half days for job work, light teaming, &c. A little care in this respect will often prevent sore shoulders and reduced condition. The harness should be examined frequently, to see that it fits well, and to prevent chafing. It will be observed that when horses are plowing the traces draw downward, and when attached to a wagon, horizontally; the back-straps should therefore be lengthened a little when they are removed from the wagon to the plow.

PLOWING.—Light or gravelly soils, which quickly become dry, may be plowed at almost any time; but rich loams should be taken at precisely the right period. If plowed too early, while yet wet, they may become poached and injured for the season. If left too late, the spring rains may have settled back what the frosts of winter have loosened. Plowing WELL saves much labor in subsequent tillage. Narrow furrow slices, (except with sward,) pulverize the soil more perfectly, and leave a beautiful mellow surface. Furrows seven or eight inches deep, and only six inches wide, are easy for the team, and leave the land in very handsome condition.

MANURE.—This may be applied with advantage to spring crops, if it is in such condition as to be pulverized finely. After spreading, it should always be thoroughly harrowed, and broken and intermixed with the top soil before plowing under. Coarse manure should be used in compost heaps. If very strawy, throw it up into heaps in the yard for remaining during the summer; if less strawy, draw it out to the fields where it is to be applied, and make compost heaps by thin alternating layers of turf or loam and manure.

CARROTS.—Failure often results with this crop by being planted too late—the seeds miss; the sun burns the plants. Get them in as early as possible, or as soon as the ground can be made thoroughly mellow. It does not pay to plant carrots on foul or weedy

ground. The labor of hoeing will be too great, but if the ground is clean, rich and mellow, carrots may be made eminently profitable. Farmers often think it necessary to turn their animals on early grass, thus injuring the turf; but a supply of carrots in spring would give them all the advantages of green food, and none of its drawbacks.

BARLEY AND OATS.—Sow these as early as the seed can be put in, on well prepared land—we have known a delay of two weeks to lessen the crop equal to its entire nett profit.

POTATOES should also be planted early, for the great mass of experience is in favor of early planting to prevent rot.

CALVES.—The great secret of success in raising calves, after keeping them clean and comfortable, is very regular and uniform feeding, combined with nutritious food, and avoiding all sudden changes in their food. On the whole, it is best to wean them very early, as they will then never suck the cow again, nor themselves. Their food may at first be new milk, then warm skimmed milk, then skimmed milk with meal intermixed, thus passing from new milk to common food with meal, and being especially careful that all these changes should be very gradual, and almost imperceptible.

WHEAT CROP.—Red root and cockle should be pulled early, and not a vestige of either left.

RAINY DAYS.—Clear out all rubbish from cellars, and keep them clean and well purified. Grease wagons, oil harness, brush up stables, examine and render perfectly clean all seed for sowing and planting. Examine and repair tools, and have them all in perfect order for the busy season now about to commence. Prepare account books, and keep an accurate account with every field.

ORCHARDS AND SHADE TREES.—The enterprising farmer should not forget these. The time for planting may vary considerably with circumstances—if they have been dug up early, before the buds have swollen and have been well heeled in, they may be set out safely, even after the leaves on standing trees have begun to appear. The great point is to take up the roots with them; they are commonly nearly all left behind; stems and tops are not of much value without roots. If this point has been carefully attended to, and the roots have been well spread out in every direction when set, and placed compactly in fine earth, they cannot fail to grow; there is no use in loosing one in a thousand. After that, the great requisite is to keep the surface mellow and well cultivated.—*Tucker's Annual Register.*

MILK CLEAN.—The first drawn milk contains only five, the second eight, and the fifth seventeen per cent. of cream.

A CANADIAN CHEESE FARM.

IN this country the manufacture of cheese is generally confined to districts not adapted to the production of wheat. It is seldom that we see a cheese dairy in Western New York, or any other good wheat growing section. We think, however, that it would be well for our grain-growing farmers to pay more attention to dairying. Wheat and stock (either sheep, cattle or cows) should go hand in hand. In no other way can we keep up the fertility of our soils.

We find in a late number of the *Canada Farmer* an account of a cheese farm in the county of Oxford, one of the best wheat sections of Canada West, from which we make a few extracts. We have long been acquainted with the cheeses of Mr. Ranney, and can testify to their excellence:

"Mr. Ranney and his two sons own and occupy 700 acres of land close to the village of Salford, and on either side of the gravel road from Ingersoll to Tilsonburg. Of this large tract, some 600 acres are in a state of tillage. The soil varies from sandy loam to clay loam. From 80 to 100 cows are kept, and these with 5 horses, 120 sheep and a few pigs constitute the entire stock of the farm. The cows are pastured during the summer, and fed on straw, turnips and hay during the winter. Besides the cheese manufactured, there were raised during the past season some 300 bushels of wheat, 550 of oats, 300 of peas, 2,000 of turnips, 100 of corn, about 200 tons of hay, and about 4,500 pounds of pork. Of course an estate so large might be so managed as to produce far more, but the Ranneys appear to be satisfied to make money in a quiet, comfortable way, rather than to grow rich faster at the expense of more care, bustle and worry. The stock are allowed a wide range in summer, and fed in the least troublesome way during the winter. The dairy season lasts from May to December usually. In winter the cows are allowed to go dry, and each is expected to bring her calf in the spring, so as to begin the dairy campaign with a full supply of milk. The calves are usually killed at three or four days old, as it is found unprofitable to make veal of them. They are valuable only for their skins and rennets. So soon as the milk of the mother is fit for cheese making, the rennet of the calf is fit also. The rennet, which is simply the upper stomach of the calf, and secretes a fluid which has the effect of curdling milk, is prepared for use by thorough salting only. A good rennet will make from 200 to 300 pounds of cheese.

"The process of cheese-making as practiced by Messrs. Ranney & Harris, is as follows: The cows are milked twice a day, and the new milk is strained from the pails into tubs, and forthwith its conversion into cheese begins. The milk is in the best

state to receive the rennet at a temperature of about 90°. The rennet takes about half an hour to operate. The milk begins to curd in fifteen minutes, but it requires at least as much more time for it to harden to a proper consistence. When sufficiently hard, the curd is cut backward, forward and crosswise with a many-bladed knife, in order that it may settle to the bottom of the tub, and leave the whey floating on the top. A cloth is then spread upon the surface through which the whey is strained and dipped off into conducting troughs by which it is conveyed to the pig-gery.* The hogs fed receive nothing but whey until the close of the season, when the supply of milk begins to fail, and a few peas are given to finish them for butchering. After being cut as above described, the curds are thoroughly broken three times with the hands. They are then placed on a species of rack over a sink and left to drain for an hour, when they are put back into the tub, and being by this time in a somewhat solid state, are cut into pieces two or three inches square preparatory to washing. Whey is heated for the purpose of scalding the curds, and washing out the remaining whey from them. The whole mass should be at about a temperature of 100°, during the scalding process. After being washed, the curds are again placed on the rack over the sink—cooled by pouring cold water upon them, and again left to drain for nearly an hour. They are then put into the curd-grinder—a sort of cylinder with a number of short knife-blades, or sharply-filed nails in it, (nails work best,) turned with a handle in the same way as a grind-stone. One person feeds the hopper with curds, while another turns. The grinding is soon over, and the next step is to salt the ground curds. About a teacupful of salt is applied to 20 weight of curds. Salting the curds is a very particular process, and requires to be done carefully and thoroughly. The salted curds are then put into the hoops or molds, and are ready for the cheese-press. Slight pressure is applied at first, and in half an hour or an hour it is increased. Cheeses are pressed from 24 to 48 hours, according to size. They are made of different weights: *e. g.* 30 pounds, 50 pounds, 60 pounds, and from that up to 250 pounds. The common size, and that generally preferred, is about 60 pounds. For the Provincial Exhibition, Messrs. Ranney & Harris have made cheeses of from 1,000 to 1,200 pounds. These mammoth cheeses when cut and sold have proved in point of flavor quite equal to those of smaller size. After their removal from the press, the cheeses are enveloped in a tightly-fitting case of factory cotton, and placed on shelves or counters in the cheese-house to cure. They are turned daily, or every other day, and the white mold which gathers upon them is

* One of our American cheese vats, with a strainer, would materially lessen the labor of this part of the process.—Ebs. G. F.

rubbed off with a cloth. They are fit for sale and use when about two months old. They cure and acquire flavor quickest in the heat of summer. Fall made cheese is necessarily mild, unless kept over until another summer. The older the cheese the richer and stronger it becomes; hence epicures like old cheese.

"Mr. Ranney makes from 14 to 18 tons of cheese per annum, and Mr. Harris from 9 to 10. The price ranges from \$8.50 to \$9.00 per cwt., or \$160 to \$180 per tun, wholesale. The retail price is from 10 to 12 cents per pound. It is all disposed of and consumed in Canada. A 1200-pounder was sent to England as a curiosity for exhibition at the World's Fair, but was excluded because of the rule against the reception of perishable articles. It was, however, sold at a remunerative price. Last year the single town of Guelph bought nearly all the cheese manufactured by the Ranneys.

"In addition to the common cheese, Messrs. Ranney & Harris manufacture pine-apple and Stilton cheese. Both are similarly made. The pine-apple is so called from its shape and marking; the marking in diamonds like the pine-apple rind being caused by hanging in a net during the curing process. To make these cheeses, sweet cream is added to the new milk before the application of the rennet, in the proportion of about a quart of cream to a cheese of 10 pounds—the usual size of the Stiltons and pine-apples. The curds are not salted quite so much because they dry quicker than in those of the common kind and size. Sometimes a little cayenne-pepper and lemon-peel are put in to flavor them—as in the manufacture of common cheese herbs are sometimes added to produce a particular flavor. The Stilton and pine-apple cheeses are made in the month of June, that they may cure quickly and acquire richness and strength from the summer heat. Mr. Ranney made about five cwt. of them last summer, which were sold to London (U. C.) merchants at \$18 per cwt.—double the price of common cheese.

"A cow is estimated to yield from 300 to 350 pounds of cheese annually. The old, kicking, three-teated, or otherwise disabled and unprofitable animals, are fatted in the fall and early winter, and replaced by new stock the following spring. Mr. and Mrs. Ranney, Sr., visited the cheese factories in Herkimer county, N. Y., a season or two ago, in order to acquaint themselves with the mode of manufacture pursued there. On the whole, they considered their own process about as effective as what they witnessed. The plan of turning heavy cheeses in use in these factories, is almost the only improvement on their own method they think worthy of adoption.

"From the foregoing account it will be seen that so simple and inexpensive are the arrangements in use by the Messrs. Ranney & Harris, that cheese

making, as practised by them, is quite within the reach of Canadian farmers in general. Without large outlay or complicated apparatus, they have taken and held the first place as cheese-makers in this Province, and have succeeded in regularly manufacturing an article which would do credit to the best dairies in the world. We hope to see their example imitated all over the Province as widely as it is in their own immediate neighborhood. It may be encouraging to state that these gentlemen have found cheese-making a most profitable business. Mr. Ranney's success is indeed remarkable. He came to this country without means, and is now one of the richest farmers in Canada."

HINTS ON PAINTING.

In performing the necessary manipulations for house-painting, the priming coats for exterior work should be mixed with clear old white lead and pure linseed-oil, in about the proportion of ten pounds of white lead for every two quarts of oil. For interior painting, it is best to use with the lead boiled linseed oil exclusively, instead of raw, or a proportion of boiled and raw, as is sometimes done, with a small quantity of patent dryer ground in turpentine, which will cause the priming to set quick and form a body without dripping. For exterior second-coat work use the priming process, and add thereto sufficient white lead to make the paint quite stiff. If neutral tints are used, then estimate about two-thirds of the above proportion of lead to be added to one-half its bulk of color, and all the oil they will take.

For second coating interior work, grind the white lead in raw linseed oil to the consistency of thick paste; then reduce it with turpentine until in a proper condition to spread with the brush, using, as a general rule, an equal quantity of oil and turpentine, to complete the mixing process. The second may sometimes be made a finishing coat by the addition of a larger proportion of turpentine, and by straining the color carefully, and adding a portion of the finest French zinc, equal in proportion to half the quantity of lead used, supposing the finish to be a clear dead white. For neutral tints, the addition of the required color in the proper proportions to the white, mixed as above, for a base, is sufficient. I would not, unless in some exceptional cases, advise the use of two-coat work for completely finishing the wood work, but wish to be understood as urging the necessity of not stopping short of good three-coat work, and in some cases four and five coat-work.

In preparing the third coat, if designed for a dead white, the ingredients should be first, equal parts of the best old American white lead, and the best quality of French zinc, ground in equal parts of raw linseed oil and turpentine, as stiff as possible, and

afterwards reduced with all turpentine to the proper consistency for use.

If it should be required to finish with a superior gloss, (technically termed China gloss,) then the work must receive a coat of white shellac upon the priming, and the last or third coat should be composed of three parts zinc to one of lead, ground in oil and turpentine, and reduced with the latter, and after becoming dry should have, in addition, one coat of the best white varnish, and to perfect the gloss, add still another coat.

An exceedingly beautiful white paint for interior wood work may be obtained by the following process: To one-half gallon of turpentine add twenty ounces of frankincense; place it over a fire to dissolve, after which strain and put in cans for use. To one quart of this mixture add three quarts of bleached linseed oil. To these two mixtures combined add equal parts of clear old white lead and the best French zinc, ground in turpentine. Strain them; and if too stiff, reduce with turpentine, as for other interior work. Paint prepared in this manner gives out scarcely any odor, and if well done will preserve its fine finish many years; but its great cost, compared with the commoner kinds of white paint, prevents it coming into general use.—“*Artificer*,” in the *Horticulturist*.

BUCKWHEAT UNFIT FOR SHEEP.

MR. JAMES H. PECK, of Albany, C. W., writes as follows to the *Canada Farmer*: “In the fall of 1862, we went into winter quarters with forty-eight French and Spanish Merino sheep, and ten common grade sheep, all of which were in good (store) condition. We kept them in the basement story of a barn 48 by 53 feet, which was very comfortable with good racks, &c. In the early part of the winter we fed pea-straw, wheat-straw and corn-stalks; and having over four hundred bushels of buckwheat to thrash in that barn, about midwinter we commenced thrashing it with the flail, and, as feed was supposed to be very scarce, we thought it necessary to save every ounce of feed, and therefore began feeding buckwheat straw, and occasionally we would feed stalks and pea-straw; but our sheep would leave both and eat the buckwheat straw in preference. Consequently we gave our sheep what buckwheat straw and chaff they could eat for six or eight weeks; and during this period all seemed right, until the fine warm days in April, when we found one sheep after another would leave the flock and appear stupid, not appearing to recognize the flock, or anything else; and perhaps the next day we would find one dead and then another, and so on. It now became necessary to ascertain what the disease was, and I consulted *Youtt on Sheep*, R. L. Allen’s *Diseases of Domestic*

Animals, *Rural New-Yorker*, *Genesee Farmer*, &c., but could find no light thrown on the matter. We did not know what treatment to follow. The sheep were getting worse every day. Nearly all the flock showed signs of the malady. They became bloody about the forehead and neck, the wool and skin having been rubbed from their necks, foreheads and legs. One of the sheep rubbed so close as to spoil the sight of one eye. They kept dying one after another in this way until we had lost twenty-three of the Merinos, and nine out of ten of the grades. We now changed our feed to carrots and turnips, and gave frequently plenty of salt and sulphur, and with a good deal of care and trouble we saved the balance of the flock, but they did not entirely recover from the malady until about the first of July.”

Have any of the readers of the *Genesee Farmer* witnessed any ill effects from feeding buckwheat straw to sheep?

BONE DUST.

MR. CUMMINGS, the Agricultural Editor of the *New York Observer*, says: “When entering upon the cultivation of our present farm, we asked our predecessor what field would give a crop of potatoes without the application of fresh barnyard manure, as we feared the application of such in inducing ‘the rot.’ A five-acre field was named. We carefully planted and cultivated it, and found no rot among the potatoes, but the yield of the whole field did not supply the tables of the farm for the year, so exhausted was the land. In the autumn we plowed and sowed the same field with rye, applying twenty-five bushels of bone dust to the acre. Such was the immediate effect of the application, that when the rye was grown, a man of ordinary stature would be concealed by the crop in walking through the field. Grass seed was sown with the rye. A good crop of hay was taken the first year it was mowed. But the second year, when turf was well established, sixteen tons of hay were taken from the five acres. After mowing it four years, it was plowed and planted to corn, giving a heavy crop without manure. Such is our experience in the use of bone as manure. Bone dust by the quantity costs as to quality from 50 to 70 cents the bushel. Twenty to twenty-five bushels of bone is a good dressing to the acre, and is worth from two to three times the same cost of stable manure brought from the city. Bone dust should be applied to and left as near the surface as may be, and be suitably covered. We usually sow broadcast after the first harrowing. The second course of the harrow will cover near the surface.”

CURE FOR LICE ON CATTLE.—A correspondent of the *North British Agriculturist* says he has found that sweet cream rubbed on the parts affected speedily relieves the animal of these insects.

POULTRY HINTS FOR APRIL.

WRITTEN FOR THE GENESEE FARMER BY C. N. BEMENT.

APRIL is a busy month with the hens; they will lay more eggs in this than in any month of the year. They must now be closely watched and their eggs collected daily, and now is the time for the boys to lay in a store for "pans." The latest laid or freshest eggs should be selected for sitting. It will be found profitable to sit as many hens as possible in the early part of this month. Early hatched chickens are much easier reared than late ones, and are more profitable and sell for better prices in market, according to their cost.

Do not sit eggs of the small breeds under the larger varieties. Nature designs that every hen shall sit upon her own eggs and hatch her own progeny. But the domestic hen is in an artificial state, and deviations from the laws of nature are therefore to be expected. A wild hen will lay no more eggs than she can conveniently cover, and her periods for laying and for incubation will be fixed and regular, while on the contrary domestic hens lay many more eggs than they can cover. A hen prompted by instinct to the task of incubation asks only for eggs suited to her size, be those of her own production or not, a nest and undisturbed solitude is required. They are modest birds and seek retired situations, and their natural instincts should be studied and indulged. At this juncture she utters an instinctive cluck, ruffles her feathers, wanders about, searches obscure corners and recesses, and is entirely ill at ease. She is feverishly hot, impatient and anxiously restless, and resolutely takes to a nest where she is evidently pleased to see other hens lay their eggs, of which she immediately takes possession. In highly fed hens this instinctive desire comes over her sooner than in such as are not supplied with food in abundance. By high feeding some hens, especially the Dorkings and Brahams, which as sitters, take pre-eminence over all other breeds, may be induced to sit early. Generally speaking, early spring chickens are desirable, which should be watched in March, so as to be ready for market or table by the latter part of May and through the months of June, July and August. But very early chickens require great care and attention, but they return an ample profit. The incubation must take place and the chickens reared and fed in a warm room kept at an equal temperature.

As spring advances, when the weather is fair, the hen with her brood may be cooped out in a dry sunny situation. The coop should be boarded on three sides, and a glazed front facing the south or south-west. Floor of boards, to prevent undermining of rats and other vermin. A small, narrow door under the glass, running the whole length of

the front, hung at top, for the egress and ingress of the chicks, which should be closed at night to secure them from the intrusion of predaceous animals. Holes for ventilation should be made near the top. Coarse sand or fine gravel should be strewn over the floor, and often renewed. The chicks should not be allowed their liberty in stormy weather, nor until the dew is off the grass in the morning. As the season advances and the weather becomes warmer, the sash-lights should be removed and replaced with slats. We will now leave the hens and chickens, and turn our attention to the

Turkeys, which now demands particular consideration. The latter part of March or beginning of April the turkey commences laying, which is indicated by a peculiar cry, by strutting about with an air of self-satisfaction, and often by prying into out-of-the-way places, seeking for a secret spot for incubation; if a copse or woods are near, she may be seen stealing away in search of a safe nook or corner to deposit her eggs, for her instinctive dread of the male is not removed by domestication, nor has the male lost that antipathy to the eggs which is his characteristic in a state of nature. She should now be watched and some management required. When her uneasiness to lay is evident and the symptoms prove that she is ready, she should be confined in a shed, barn or place in which her nest is prepared, and let out as soon as the egg is laid. It is generally in the morning that the turkey-hen lays, and mostly every other day, though some lay every day until the clutch amounts to from fifteen to twenty. It is well to remove the eggs as they are laid, and substitute an artificial or porcelain egg, until the number is complete. They may then be restored to her for incubation.

During the term of her laying it is advisable to confine the cock, at least in the morning, when she is laying, otherwise, if he finds her on the nest, he will drive her away and break her eggs. It is the same with the peacock.

The turkey-hen is an inveterate sitter, and in this respect resembles the wild bird; nothing will induce her to leave the nest, indeed she often requires to be removed to her food, so overpowering is instinctive affection. She must be freely supplied with food and water within her reach. She should on no account be disturbed; no one except the person she is accustomed to, and from whom she receives her food, should be allowed to go near her, and the eggs, unless circumstances imperiously require it, should not be meddled with.

The turkey-hen sits from twenty-eight to thirty days, and it is said will continue on the nest even until starvation, and when hatched she is not the most careful mother, nor is she a good provider, as she does not scratch for her young, like the common

hen, but leaves them to shirk for themselves ; but she is ever alert to discover birds of prey and gives timely notice. As she is now fairly engaged in hatching her eggs, we will leave her until she comes off with her brood when we will treat on their management.

Ducks—No country place should be without some ducks, especially where a small run of water or grassy ditch for them to dabble in, as where there is an abundance of water they will find the greater part of their living. They are the most industrious of all the fowl tribe, and we have often gazed on them with wonder and admiration to see them sputter in shallow and dive down in deep water. A drake and five or six ducks will cost but little to maintain them, and do incalculable and unknown service by the destruction of bugs, snails, worms and the larvæ of annoying insects. The only trouble they will give is that if there be much extent of water or marshes within their range they are liable to lay and sit abroad, unless they are constantly looked after and driven home at night and provided with proper shelter. They should always have a lodging place of their own. A bedding of straw should be placed on the floor of their dormitory, and frequently changed. Boxes for nests should be placed around in their house or pen for them to lay in, and they should not have their liberty in the morning until they have laid their egg.

The duck, if well fed in the winter, will generally commence laying about the first of April, if they are lodged in a dry, comfortable place, as they should be. They must now be closely looked after, for they are very careless, and deposit their eggs wherever they happen to be in the water, in shady and secluded places, even after having concealed them from the vigilance of the person who has care of them ; they hatch them secretly, and some fine morning bring their young brood to the house to ask for food without requiring further trouble.

At the laying season ducks require particular attention, inasmuch as they are not easily brought to lay in the nests prepared for them as common fowls, but will stray away to hedges and other by-places to lay, and will even sometimes drop their eggs in the water. We have said ducks commence laying about the first of April, but so far from producing the limited number of sixteen eggs, some will lay as many as fifty, and even double that number. They do not usually continue to lay however later than June, unless they are very well fed, the great secret for rendering them prolific, provided they do not become too fat.

Ducks are not generally inclined to sit, but to induce them to do so towards the end of laying, two or three eggs are usually left in the nest, being care-

ful every morning to take away the oldest in order that they may not spoil. From nine to eleven eggs are allowed her, according as she is able to cover them. Incubation lasts thirty days ; and the first broods are generally the best, because the warmth of summer helps much to bring them about, the cold always prevents the late broods from getting strong, and giving as large ducks.

QUANTITY OF CHEESE PER GALLON OF MILK.

IN family cheese-making there is considerable difference in the quantity of cheese produced by different persons from a given quantity of milk. A skilful manufacturer should, during the season, average a pound of pressed curd from a gallon of milk, *wine* measure, or a pound of *cured cheese* from a gallon of milk, *beer* measure. When at the Rome factories in June, 1862, I was told that 600 cows were then producing daily about 1,450 *wine gallons* of milk, which turned off 1,250 pounds of pressed curd. The curd at this factory was divided up and pressed into eight cheeses. At another factory, where the milk of some 400 cows was used, the produce was 965 gallons, *beer* measure, making 1,120 pounds of pressed curd, or about 115 pounds of curd to 100 gallons of milk, though I was told the quantity of curd varied from day to day, some days being several pounds less than in the proportion above stated. At this factory the curd was divided up into four cheeses of about 280 pounds each. The shrinkage on the cheese while curing, in the first factory mentioned, would average, it was said, about five per cent. Milk, of course, varies in quality at different seasons of the year. In the fall, as the quantity decreases, it is richer, and some cheese manufacturers deem its condition too thick to be worked with the best advantage into cheese ; they therefore thin it down by adding water at the rate of one gallon of water to ten gallons of milk. This dilution it is claimed, produces a better curd with less liability of losing butyraceous particles in working, etc.—*X. A. Willard, in Trans. of N. Y. S. Ag. Society.*

FEEDING VALUE OF GRAIN, &c.—In answer to an inquiry, the Editor of the *Irish Farmers' Gazette* states that "45 lbs. wheat are equal to 54 lbs. barley, 59 lbs. oats, 54 lbs. rye, 57 lbs. Indian corn, 69 lbs. linseed-cake, 374 lbs. wheat straw, 195 lbs. oat straw, 100 lbs. hay, 276 lbs. carrots, 504 lbs. common turnips, 350 lbs. swedes, 339 lbs. mangolds."

Is there not some error in these figures? Linseed-cake, which is here placed lowest in the scale, we should place the highest. It is certainly much more probable that 45 lbs. of linseed-cake is equal to 69 lbs. of wheat, than that 45 lbs. of wheat are equal to 69 lbs. of linseed cake ; and the same remarks will apply to Indian corn. The figures should be revised !

THE OHIO SHEEP GROWERS' CONVENTION.

THE Hon. Simon Brown, editor of the *New England Farmer*, attended the late Wool Growers' Convention at Columbus, Ohio, and in an interesting letter to his paper, says the object of the convention was two-fold.

1. To bring as many persons together as possible, who are engaged in the culture of sheep, to discuss the advantages and disadvantages under which they labor, and to devise some means whereby a compact and intelligent power might be established, that could be made influential whenever their interests demanded it—and also, that by a comparison of opinions as to the best breeds, and practices in culture, each party might be benefited by knowledge gained from the other.

2. To petition Congress so to amend the Internal Revenue Laws, as to impose a tax upon dogs; with a view to protecting sheep, by the destruction of dogs.

The latter subject gave rise to a spirited discussion. Mr. Montgomery, of Ohio, said "that annual loss to wool-growers in the State in the destruction of sheep by dogs is \$100,000. But this is not the only loss. Hundreds of persons whose farms are especially adapted to the culture of sheep, cannot enter upon it on account of dogs, and are obliged to resort to crops unsuited to their lands. He thought the loss in this particular \$100,000 more—making the annual loss to wool-growers \$200,000 at least! He had no doubt there were half a million dogs in the State, while the returns required by law, show only about 175,000. Under this state of things, the efforts of the wool-grower are constantly checked, and this great national interest retarded. Another speaker said that each dog cost what would be required to raise a pig worth \$15, which would make an annual loss of \$2,625,000; and if the number of dogs were half a million, as Mr. Montgomery thought there were, the loss by dogs to the State, annually, would be *one hundred and thirty-five millions of dollars!*"

Mr. McCloen, Jr., said dogs are outlawed by the statute; we have law enough, but it is not enforced; wool-growers are too modest; they do not protect themselves under the law. He thought a tax imposed by the general government would prove totally inoperative. We must change public opinion. The wool interest must exceed the dog interest, and this will be our only remedy.

Mr. Defore stated something of his experience and observation in sheep culture; said the vast prairies of the West, under proper protection, are destined to be covered with immense flocks and to become the seat of a happy and prosperous industry. He thought this branch of enterprise involved as many

interests of mankind as any other in our pursuits. We import 50,000,000 pounds of wool annually. We have every facility for producing ten times this amount, but for the destruction caused by dogs. He did not blame the animals, but their owners; they train them wrong; starve them into attacks upon sheep in order to sustain life.

Mr. E. H. Griswold, of Vermont, said that dogs had been the great stumbling block to success in growing the Spanish Merino Sheep. He had traveled all through the great North-Western States, and even beyond the Mississippi, looking into the condition of the interest, and this fact holds good everywhere. Dogs are the bane of the wool-grower. The remedy is to form "*canine association*," with the most stringent rules, binding every man to *act up to the very letter and spirit of the law* which is intended to protect them.

Mr. Stevens, said we have Ohio law enough. There is no necessity for applying to Congress for relief. Most of those who own dogs are *irresponsible persons*, and when their dogs have done the mischief no redress can be obtained. No dogs should be kept. The next speaker said that a national tax would be equivalent to a *license to keep dogs*, then the evil would be increased instead of abridged.

Judge Lawrence said there were 200,000 dogs at large, and it is certain that they almost destroy the leading interest of the State. Voluntary associations will amount to nothing. After some further discussion, he offered the following resolution:

Resolved, That a memorial be presented to the General Assembly, asking the enactment of a law providing:—

1st. That when any person shall own or harbor more than one dog, he shall give bond with surety in \$1,000, for all damages done by *all* dogs he may keep or harbor.

2d. The owner or harborer shall furnish the proper stamp for the bond; the bond shall be taken by the Assessor, and in default of giving the bond, the Assessor shall kill the dog.

3d. The Assessor shall receive no pay until he makes oath that he has performed all his duties under this law.

4th. In all actions to recover damages for the sheep killed or injured, the Court shall, in addition to the damages recovered by the owner, render judgment for an equal sum to be paid into the County Treasury, to be appropriated by some just mode in paying for sheep killed or injured, and in prosecuting actions against the owners of dogs for damages to sheep.

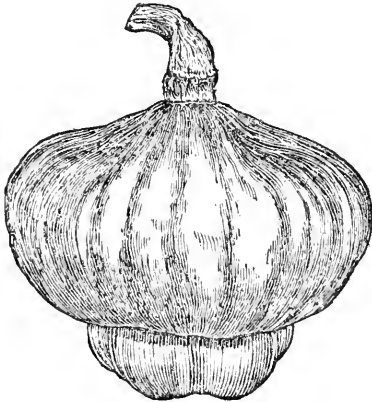
5th. That when the owner of sheep killed or injured by any dog fails to sue for damages for three months, it shall be the duty of the prosecuting Attorney to sue in the name of the State when like damages shall be recovered as in cases where the owner prosecutes, including the double damages—and the money recovered shall be paid into the County Treasury.

This drew out a spicy debate which awoke all the late storm-tossed travelers, and gave the Convention

a lively appearance. The debate was arrested by the following more conservative proposition of the Hon. Columbus Delano, late Member of Congress from Ohio, viz:—"That a Committee of three be appointed to prepare a bill to be submitted to the legislature for promoting the interests of wool-growers, and for protection against dogs; and that said Committee memorialize the General Assembly in favor of passing said bill." This resolution was finally adopted as an amendment to, and took the place of Judge Lawrence's resolution. In his remarks urging the passage of this resolution, Mr. Delano said the power of the legislature had not been exhausted, and excellent results might be obtained by further appeal to it.

THE TURBAN, OR TURK'S HEAD SQUASH.

J. J. H. GREGORY of Marblehead, Mass., well known as the introducer of the Hubbard squash, sends us a cut and description of a new French squash, which, after carefully experimenting with this and other varieties, he is prepared to recommend as "decidedly the best of all varieties for fall use." It grows to a good size for family use, averaging about 7 lbs. each.



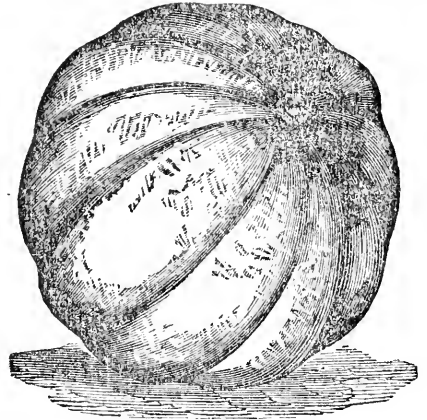
On rich land it yields at the rate of six tons per acre, Mr. Gregory having taken the prize at the county society for the greatest yield in competition with other varieties. The Turban squash is dry, very fine grained and rich flavored, with very thick flesh. As a fall squash, Mr. G. thinks the Turban will take as high a rank as the Hubbard now occupies as a winter squash.

Mr. Gregory gives the following directions for its cultivation: "Select good warm soil, fill it well with manure, then mark off the hills 8x9 feet apart, mix in some fine stimulating manure in each hill (such as superphosphate or Guano) and plant early in the season four seeds in each hill. When the runners begin to show themselves, thin to two or even one plant to the hill, keep down the weeds and loosen the soil between the hills frequently with the

cultivator. If you wish to store the squashes, allow them to remain on till the vines are dead, when gather and store after two or three days exposure to the sun. Avoid piling them in the field, and do not expose them to cold rains after gathering; this hurts the keeping properties of any squash. In storing do not stand them with the "acorn" downwards, but lay them on the sides."

WHITE JAPANESE MUSK MELON.

AMONG the seeds which we send as a present to our agents, is the White Japanese Musk Melon. Mr. J. Wesley Jones, of Chatham Four Corners, N. Y., from whom we obtained the seed, says it is the sweetest,



thin-skinned melon yet introduced. It ripens as early or earlier than the Nutmeg and Christina varieties. Mr. Jones obtained his original seed direct from Japan and we trust those of our friends who receive a package of seeds will give this melon a fair trial.

WHITEWASH.—White fences and out-buildings indicate the thrifty farmer and a tidy household. Put half a bushel of unslacked lime in a clean, tight barrel, pour over it boiling water until it is covered five inches, stir briskly until the lime is thoroughly slacked, then add more water until it is as thin as desired, next add two pounds of sulphur of zinc and one of common salt; then apply with a common whitewash brush, giving a good coat in April and October, or at least once a year.

OIL THE NAILS.—If you wish to drive a cut nail into a seasoned oak timber, and not have it break or bend, just have a small quantity of oil near by and dip the nail before driving, and it will never fail to go. In mending carts and ploughs this is of great advantage, for they are generally mostly of oak wood. In straightening old nails before using, let it be done on wood, and with easy blows. If done on iron, they will be sure to break.

SHORT SERMONS FOR FARMERS—No. 4.

WRITTEN FOR THE GENESEE FARMER.

For his God doth instruct him to discretion, and doth teach him.—ISAIAH 28: 26.

By reference to the context we learn who it is that is here declared to be the subject of Divine teaching. It is the husbandman. "Doth the ploughman plough all day to sow? doth he open and break the clods of his ground? When he hath made plain the face thereof, doth he not cast abroad the fitches, and scatter the cummin, and cast in the principal wheat, and the appointed barley, and the rye, in their place? For his God doth instruct him to discretion, and doth teach him."

Discretion is that discernment which enables a person to judge correctly of what is suitable and proper, united with caution. A discreet man is a wise man in the sphere in which he exercises discretion. The sphere of the discretion of the text is Husbandry. The husbandman is taught of God to adapt his labor and different soils to the production of *livers* crops. God teaches him that plowing and opening the clods of his ground are not sufficient to secure a harvest. He must, after the ground is properly prepared, distinguish between the different kinds of soil, and commit to each the seed of the crop, to produce which it is best adapted. He "casts in the principal wheat, and the appointed barley, and the rye, *in their place.*" The text declares that God teaches the husbandman this discretion. How does He teach him? Not by immediate revelation. Agriculturists are not inspired men. God teaches them through their own observation and experience. These are second causes through which God imparts agricultural wisdom. But His teaching is connected with the exercise of the husbandman's own understanding and reason in determining when to plough, when to sow, and the kind of soil appropriate to the species of grain he wishes to raise. God shows him the mistakes he makes in these respects, not by an audible voice—not by immediate revelation—but by the results of his labor in harvest, and by the failures and successes of his neighbors. This observation of his neighbors is not being 'a busy body in other men's matters.' It is one mode, and a legitimate one, in which he learns of God how to succeed in his avocation. Another suitable mode is for farmers to meet together for the purpose of detailing to each other their experience in raising different crops. In this way God teaches the farmer and "instructs him to discretion." He does it none the less because it comes through human lips.

REMARKS.—1. If God gives the husbandman wisdom in his avocation then it is not fanaticism for him to pray for this species of wisdom. It is a great mis-

take to suppose that we are allowed to pray only for that "wisdom the beginning of which is the fear of the Lord." We may also wait upon God for knowledge and skill in the lawful avocations of life. These are as truly the gift of God as spiritual wisdom. Both are equally connected with second causes, or means, the neglect of which will leave us foolish in one as well as in the other.

2. If God instructs the husbandman through observation and experience, then he should be a careful observer of the modes of the Divine agency in the production of different crops.

3. If God teaches the husbandman how to conduct his business successfully, he shows himself to be a dull scholar when he commits his seed to soil which is not suitable to the production of the crops designed. Of all men he is the last to complain of Providence because his expectations are disappointed. In commercial avocations success depends upon second causes so recondite—upon moral causes which it is often so impossible to trace to their effects, that tradesmen are comparatively inexcusable for failure. Not so with the farmer. Sometimes, it is true, he may have unpropitious seasons, which he cannot foresee. But God's teachings to him ordinarily are more distinct and definite than to the tradesman. For while it is true that God controls in the moral world as well as in the natural, yet in the latter his methods are more distinctly uniform and more easily perceived. Hence farmers, as a class, ought to be more successful than tradesmen.

4. This subject shows us that farmers ought to be intelligent men within the sphere of their avocations. They are taught of God, who is infinitely wise. If, therefore, they are ignorant and unskilful they are blame-worthy.

5. Farmers ought to be praying men. I mean they ought to pray for success in their business. God can give them success or withhold it, for he gives weakness or power to second causes, as he will without working a miracle. But how can a farmer pray for success unless he conforms to the divine methods—*i. e.*, "cast in the principal wheat, and the appointed barley, and rye, in their place."

A USEFUL HINT TO HORSE-KEEPERS.—A gentleman who has tried the plan successfully for five years, communicates the annexed method of preventing horses from chafing under the collar. He says he gets a piece of leather, and has what he terms a false collar made, which is simply a piece of leather cut in such a shape as to lie snugly between the shoulders of the horse and the collar. This feeds off all the friction, as the collar slips and moves on the leather, and not on the shoulders of the horse. Chafing is caused by the friction, hence you see the thing is entirely plausible. Some put pads or sheepskins under the collar, but these do as much harm as good, for they augment the heat. A single piece of leather, like that composing the outside of a collar is sufficient.



GARDEN WORK FOR APRIL.

It is in the month of April that the work of the garden commences in earnest, especially in the latitude of Rochester. In the latter part of March some of the more ambitious may summon courage to do a little work in the garden, get in a few seeds, &c., but it is not yet a labor of love, and it is a question whether, as the seasons generally run, anything is gained by sowing seeds in March.

The seeds generally remain a long time in the cold ground before germinating, and even after the plants come up, their growth is slow, and they seldom make as vigorous and productive plants as those started after the earth is warmed up and becomes a fit receptacle for seeds.

But when April comes with her sunny days and genial showers, every true lover of Nature feels an irresistible impulse to lend her a helping hand in putting on her vernal robes.

In the March number I mentioned as the first crops to get in the ground, onions, peas, spinach, lettuce, radish, carrots and turnips. If these were not sown in March they will be the first to sow in April. Even the hot-bed may yet be started, and if pretty well crowded, bring forward most of the plants to a proper size as soon as they will do to transplant into the open grounds.

Sow in the open ground in April asparagus, beet, brocoli, brussels sprouts, early cabbage, cauliflower, celery, cress, kale, kohlrabi, lettuce, parsley, parsnip, peas, potato, rhubarb, salsify.

Asparagus.—It is quite surprising that a vegetable so excellent and wholesome as asparagus, is not more generally cultivated in the gardens of farmers. I think its absence may be attributed to two causes—first, because we are obliged to wait two or three years after sowing the seed before gathering a crop; and secondly, the directions generally given for its culture are tedious, and involve so much labor as to discourage the novice. In answer to the first objection, you may begin to realize moderately in one year from transplanting the roots, or in two years from sowing the seeds; and in answer to the second objection, you may raise very good asparagus without going through such a tedious process in preparing the

ground, and when you once have a good bed started it will not be necessary to renew it in 12 or 15 years.

Culture.—Soak the seeds a few hours in warm water and sow early in April in drills 1 1/2 inches deep and 15 inches apart. By sowing in a rich bed and good culture, the roots are ready to transplant when one year old. Or the quickest way to get a bed is to buy one year roots at the nurseries at a cost of from \$1 to \$2 per hundred. Two hundred roots will plant a bed large enough to furnish a family of six a pretty good supply. The ground should be prepared by trenching and digging in a good dressing of fine manure into the sub-soil. Dig your trenches for the roots 2 feet apart and six to eight inches deep. Place the roots in the trenches 15 inches apart, and cover so that the crowns of the roots will be four inches below the surface of the ground. Sow about twenty pounds of salt to the square rod and cover the bed with a light dressing of coarse manure. Keep the bed free from weeds through the season, and in the fall cut down the stems, rake them off and cover the bed with a liberal dressing of manure. This completes the first year's culture after transplanting. The next spring dig in the manure as deep as possible without coming in contact with the roots, and repeat the operations of the preceding year. As the plants come up it will do to cut some of the largest for the table. It may be cooked and served the same as green peas.

Beets—Best sorts for table use are Extra Early Turnip, Early Blood Turnip and Long Blood. The beet requires a rich, deep soil, not freshly manured. Sow in drills one inch deep, fifteen inches apart and thin to four inches. The first named is earliest, the second may be sown for general summer crop, and the latter may be sown the latter part of May for winter use.

Brocoli—Sow Early Purple, Early White and Early Purple Cape in shallow drills, eleven inches apart.

Brussels Sprouts—Sow the latter part of the month, the same as brocoli.

Cabbage—Those who have not a hot-bed can sow early in April, in the open grounds, the sort recommended to be sown in hot-beds. Rows eleven inches apart, drills very shallow, thin to three inches. Plants started in the hot-bed in March will be ready to transplant into the open ground the latter part of April, in rows eighteen inches each way. A few hours before transplanting, thoroughly saturate the ground in hot-bed with water, take up the plants with a trowel with a good ball of earth attached, set a little deeper than they stood in the hot-bed, and press the earth firmly around the roots.

Cauliflower—Cultivate the same as cabbage, taking a little more pains and you will be rewarded with a more delicious vegetable.

Cress—Curled (or Pepper) Grass and Broad-Leaved are the sorts. Sow in shallow drills fifteen inches apart. The water cress requires a running stream.

Kale—Cottager's is cultivated and grown exactly like cabbage. Sea Kale should be started in a hot-bed, and is a perennial plant to be managed, something like Asparagus.

Kohlrabi, or Turnip Rooted Cabbage—Sow Early White Vienna any time from April to July, and treat the same as cabbage.

Lettuce—Sow the latter part of the month Early Curled Silesia and Butter for succession. If the gardener wishes to experiment with varieties he can try Large White Summer Cabbage, Ice Drumhead and Victoria Cabbage.

Parsley—Extra Curled is the best kind. The seeds should be soaked and sown in drills one inch deep, eleven inches apart. Thin to four inches.

Parsnip—Varieties, Guernsey, or Cup, Long White, Hollow Crown. Sow thickly in drills fifteen inches apart, cover lightly and thin to three inches.

Peas—Sow for second crop McLean's Princess Royal, 1 foot high; Warwick, 3 feet; Bishop's Long Pod, 1 1-2 feet. The first is a new variety with long pod, sugary flavor and very productive. For third crop, sow the latter part of the month, Champion of England, 5 feet, and the very best of peas; Blue Imperial, 2 1-2 feet; Harrison's Perfection, 3 feet; White Marrowfat, 5 feet, and British Queen, 6 feet. Of course, those growing higher than 1 1-2 feet will require bushing. The bush should be trimmed up fan-shaped, and if such durable wood as Witch Hazel is used and carefully laid away under shelter as soon as done with, they will last for several years. As soon as the peas are up the ground should be stirred on both sides of the rows, and after a few days a little dirt drawn to the plants. Those with leisure and inclination can experiment with the following new varieties: McLean's Advances, 2 1-2 feet, and quite early; Carter's Surprise, large, blue, 4 feet; Napoleon, 3 feet; Eugene, 3 feet; Epps' Monarch, 6 feet, and Epps' Lord Raglan, 3 feet, the last two late.

Potatoes—Early sorts: Early Sovereign, Early Dykeman, Early June. New varieties: Early Cottage and Early Algiers. Potatoes can be forwarded by starting the sprouts in a warm, light room, or on a layer of fermenting horse manure, with a thin layer of same over them. When the sprouts are 2 or 3 inches long they are ready to transplant. Handle the tubers carefully, cut them into pieces of a single sprout, rejecting the weaker ones, and plant four sprouts to a hill. Plant in the garden in hills 2 feet each way, just covering the tops of the sprouts. The soil should be pressed gently around the sprouts.

Rhubarb—Sinneaus is the best; Prince Albert and Victoria good. Sow the seeds in drills 15 inches apart, and thin to 4 inches. If soil and culture is good they are ready to transplant when one year old. Transplant this month 3 feet each way. Rhubarb can be forwarded very much by placing early in spring a headless barrel over the hill and surrounding it with warm manure 2 feet high. In cutting for use, leave a few stalks to each hill to maintain the vigor of the plant.

Salsify, or Oyster Plant—Sow in drills 15 inches apart, half an inch deep, and cultivate the same as parsnips.

Small Fruits—It is quite a common practice to grow the small fruits in the kitchen garden, and the month of April is the proper season for transplanting them.

Currants—Best varieties: Red Dutch, Cherry, La Versailles, Prince Albert, White Dutch and White Grape. Set the currants where they can be easily cultivated. They can be started from cuttings, but the better way is to procure good plants of a reliable nurseryman. Transplant with care, using the fingers freely in adjusting the roots and working dirt among them.

Gooseberries—The English varieties are the best, but not reliable on account of their tendency to mildew. The American Houghton's Seedling is reliable and productive, but inferior in size and flavor. Crown Bob, Roaring Lion, Red Warrington, Golden Drop, Green Ocean and White Smith are the better English sorts. The Gooseberry likes a rich, moist, cool soil, and is improved by summer mulching and thorough pruning.

Grapes—The Delaware, Concord and Hartford Prolific are the better sorts. Creveling, Diana and Rebecca are good in some localities. The soil should be deep, rich, dry, with a warm exposure. About 6 feet apart is the distance for garden culture. Good strong 2 year vines are best, and they should be cut back to 2 or 3 eyes. To make the greatest growth of wood keep them tied up to a stake, allowing only one vine to grow.

In transplanting trees or plants of any kind never allow manure to come in immediate contact with the roots. If necessary to use it, apply it on or near the surface.

Strawberries—Jenny Lind, Bartlett, Hooker, Triumph de Gand and Wilson's Albany are the better sorts. If the gardener is fully determined to cultivate in hills, persistently cutting off the runners (by which method the largest crops are realized,) transplant 18 inches each way, keep all weeds down, and as the berries commence ripening, strew a little cut straw, marsh hay, grass, saw-dust, or tanbark between the hills to keep the berries clean and retain the moisture in the ground. They will.

bear lightly the first year, and a full crop the second. Or plant them in rows 3 feet apart, 15 inches in the row, allowing the runners to extend one foot on each side. Keep a path a foot wide clean, between the rows, to admit of cultivating the plants and picking the fruit without treading on the vines.

Raspberries—Improved Black Cap, Hudson River Antwerp, Fastolf, Franconia and Brinkle's Orange are the more reliable sorts. Plant in a rich soil, 4 feet each way, and cut down the canes to within 4 to 6 inches of the ground.

Blackberries—Plant Dorchester, New Rochelle and Newman's Thornless 6 feet each way, on a rather heavy loam, and cut back the canes.

By a little care at the proper season, every owner of a garden can have a succession of luscious fruits the greater part of the year, adding very much to the luxuries of the table, and the health of the family.

P. C. REYNOLDS.

PYRAMIDAL ROSES.

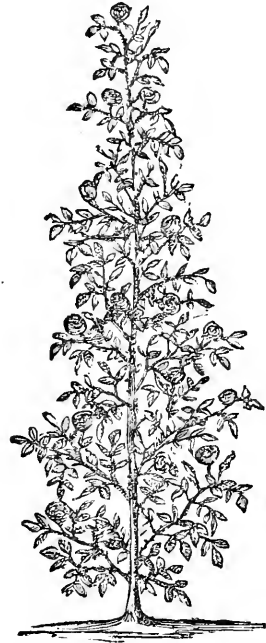
THOMAS RIVERS, of England, in a new edition of his excellent little work, *The Rose Amateur's Guide*, announces a new idea in regard to training roses, which he thinks will lead to the extinction of standard roses. He proposes to form Pyramidal Hybrid Perpetuals, of which he gives the following account:

"Standard roses, inartistic and picturesque as they are, have 'held their own' for some years. It is time that some new rose idea was originated, and I hope, ere long, to hear standard roses spoken of as things of the past—like stage coaches and road wagons. The culture of pyramidal roses will require more care and time than the culture of standards, which we all know is very simple; but the rose gardener will be amply compensated by such glorious effects as have never yet been seen in our roseries.

"Like all really good gardening ideas, the culture of rose pyramids, although requiring more time and care than the culture of standard and dwarf roses, is still very simple, and may be carried out as follows:

"Some strong two years old stocks of the Manetti rose should be planted in November, in a piece of ground well exposed to sun and air. The soil should have dressings of manure, and be stirred to nearly two feet in depth. In the months of July and August of the following year they will be in a fit state to bud. They should have one bud inserted in each stock close to the ground. The sort to be chosen for this preliminary budding is a very old hybrid China rose, called Madame Pisaroni, a rose with a most vigorous and robust habit, which, budded on strong Manetti stocks, will often make shoots from six to seven feet in length, and stout and robust in proportion. In the month of February following, the stocks in which are live buds should be all cut

down to within six inches of the bud. In May the buds will begin to shoot vigorously; if there are more shoots than one from each bud they must be removed, leaving only one, which in June should be supported with a slight stake, or the wind may displace it. By the end of August this shoot ought to be from five to six feet in height, and is then in a



proper state for budding to form a pyramid. Some of the most free-growing and beautiful of the hybrid perpetual roses should be selected and budded on these stems in the following manner: Commence about nine inches from the ground, inserting one bud: then on the opposite side of the stock and at the same distance from the lower bud, insert another; and then at the same distance another and another, so that buds are on all sides of the tree up to about five feet in height, which, in the aggregate, may amount to nine buds. You will thus have formed the foundation of a pyramid, which should be like the above figure, which is assumed to be a pyramid just pushing forth its flowers in June.

"I need scarcely add that the shoots from the stock must be carefully removed during the growing season, so as to throw all its strength into the buds. It will also be advisable to pinch in the three topmost buds rather severely the first season, or they will, to use a common expression, draw up the sap too rapidly, and thus weaken the lower buds. In the course of a year or two magnificent pyramids may thus be formed, their stems completely covered with foliage, and far surpassing anything yet seen in rose culture. I have, as yet, found no rose equal in

vigor to Madame Pisaroni, although, when attention is turned to the subject, other varieties may perhaps be found. If extra strong growth be desired, the stem may be suffered to grow two seasons before it is budded.

"To those who think the trouble of budding and re-budding too much, I may point out a more simple method, which I extract from the *Gardener's Annual* for 1863:

"Have some Dog-rose stocks gathered from the woods and hedges in November, December or January. Every stock selected should be of only one year's growth, a young shoot of the preceding season's growth. They should be planted in a deep rich soil, and some manure placed on the surface round their stems. In spring and early summer the young shoots should be removed from the lower part of their stems within, say, a foot of the ground, and all the remaining shoots suffered to grow as they list. In the months of July and August they may be budded after the following mode: Take some free-growing beautiful Hybrid Perpetual, and place one bud *in the stem*, mind, of your stock about nine inches from the ground, and then on the opposite side of the stem place another bud and so on, shifting sides to about three, four, or five feet in height. When these buds break out in the following May, be sure to pinch in closely the three or four buds at the top of the stock, or they will greedily drink too much of the precious sap. A rose-lover must imagine the great beauty of such a pillar of Empereur de Marco or Senateur Vaise; if his constitution be not strong, the sight might make him die of a rose in aromatic pain."

"The most free-growing kinds, such as Jules Margottin, General Jacqueminot, Colonel de Rougemont, Triomphe des Beaux Arts, Lord Raglan, Souvenir de la Reine d'Angleterre, Triomphe de l'Exposition, and other kinds of vigorous habit, will form grand pyramids from six to seven feet in height. For smaller pyramids those of more moderate growth may be selected. It will scarcely be advisable to bud more than one sort on a stem, as no two kinds will be found equal in growth, but as a matter of fancy, varieties of different colors may be inserted so as to make a variegated pyramid. Vigorous growing Bourbon roses may be employed for pyramids, and Tea-scented and Noisette roses, as the stock is highly favorable to their growth, but they should be protected in winter by Fern or branches of evergreens tied round them."

AGE OF THE BIG TREES OF CALIFORNIA.—A count of rings in the wood of one of the big trees of California, cut down several years ago, shows that it was *not more* than 1225 years old. It was 23 feet in diameter.

WHAT KILLS THE PEACH BLOSSOMS?

EDS. GENESEE FARMER: From Detroit, Toledo, and various other places, we hear that the blossom buds of the peach were killed by the cold blast of last January, and even here, protected as we are by the genial waters of Lake Michigan, I find the majority (though not all) of the peach blossom buds have a dark spot in the center, indicating dissolution, though the mercury in the cold of January was not below 13° (my own only 10°) below 0. A friend from Wisconsin, last season, undertook to tell me how great a degree of cold peach buds would stand and preserve their vitality. I think he put it at 16° or 18° below; and I have seen the same subject agitated and a point set in the agricultural papers. Now, with all due deference to the experience and opinions of others, I must say that I am not able to set any point in this latitude below which they can not survive. In January, 1857, I saw the mercury at 35° below 0 in Grand River Valley, in this State. I was not there the following summer, but was informed that at that place (Lowell) peach trees generally bore. During the previous winter (1855-6) the Isabella and Catawba grape vines in Ontario county, N. Y., were generally killed—the buds being entirely destroyed above the line of snow. The growth of the following summer was of course great, and we would expect not very well ripened, yet they stood a much greater degree of cold the following winter and came out "all right."

Messrs. Reiter & Maddocks, of the Great Western Nurseries, Toledo, Ohio, wrote me February 3d: "The cold wave that passed over this place January 1st, we think has killed every peach tree in our grounds of one and two years growth. Even the limbs of our old trees are discolored where they are an inch thick. The State Pomological Society met here last month. Nurserymen and amateur fruit-growers from Michigan, Illinois, Indiana, Pennsylvania and New York were in attendance. Many brought twigs with them, all showing the effects of frost alike. Ten degrees below cypher does not kill peach trees, but will the fruit, if immediately preceded by rain."

From this it would seem that the cause of failure of the peach may be more hygrometrical than thermal. I had supposed that the cause of failure depended much on the state of forwardness of the buds at the time of extreme cold but wishing to learn from the experience of others, I offer the question at the head of this article for debate.

Muskegon, Mich.

S. B. P.

KEEP your seeds, bulbs, tubers, &c., in a place where neither frost nor damp can reach them; for either of these would destroy many.

BALCONY GARDENING.

THE old ideal of a country home was the New England farm kitchen, with its wide fireplace, low ceilings and evidence of plenty seen in the bins of red-cheeked or russet apples, and pantry shelves groaning with their burden of dough-nuts and pumpkin pies. In summer a wide porch shading the kitchen door, with perhaps a hop vine casting in the sun its flickering shadows, and a large old tree, whose protecting branches extended far over the low roofed house, completed the picture. As cities have grown up where villages stood fifty years ago, and as the "far West" has extended from Lake Ontario to Lake Superior and beyond the Mississippi, luxury has become more universal and the refinements of life more general. Now our country house must be a "cottage one," with all the ornamental surroundings which such a house demands. Sometimes, when the cottage is more pretentious than tasteful, and the rooms small and stifling, where comfort is sacrificed to fashion, we sigh for the old times and the spacious farm kitchen. But when we really look at the thing fairly and realize how great the improvement is in the out-door aspect of things, how truly tasteful and beautiful the lawns and the carefully kept flower beds are, and how delicious the improved varieties of fruits, we are obliged to acknowledge that though the homes of our grandfathers are delightful to remember, that this is better to possess. Every thing which can be procured to assist ladies with a taste for horticulture, in their labors, we welcome warmly, and a book which we have just been reading seems so eminently adapted to create a taste for gardening, as well as to aid those who already have the taste formed, in their labors, that we take pleasure in making some extracts from it on balcony gardening,* and if we could give the engraving which heads this chapter all our lady readers would be so charmed with it that we do not doubt but that "balcony gardening" would become the fashion among the *Genesee Farmer* readers.

"The balcony should face the south or east, so as to obtain the morning sun; there are few flowers which succeed in the shade.

"Now, we may either grow our plants in pots, or fit up the balcony with neat boxes; but in either case the outside of them must not be exposed to the direct rays of the sun; it would heat and parch the earth so that nothing would succeed. A good way to prevent this is to make a board lining round the inside, and fill a space of three inches with straw, tan, or moss, between the outside and your boxes. Fill your boxes with a rich soil, composed of one part loam, two parts leaf mould, two parts decomposed manure. Put an inch of "rocks," or broken pots, in the bottom to secure drainage, and have a few augur holes in the bottom of each box to allow the surplus water to drain off. Now, the boxes be-

ing all prepared, and the season the first of May, what shall be planted?"

In answer to this question *Cobea scandens* as a climber to run upon the wall of the house is recommended, and *Weigela rosea* and *Spiraea prunifolia* for the corners of the balcony, and the boxes can be filled with *Mignonette*, *Indian pinks*, *Phlox Drummondii*, or any other pretty annuals. Outside climbers will be needed too, and almost any will answer there. *Nasturtium*, *Maurandia Borcalayana* with blue foxglove-shaped flowers, and *M. rosea* and *alba*, with pink and white flowers, are very graceful and pretty. With these plants a large balcony would be well stocked and gay until frost kills out door flowers:

"Then prepare for winter; dig over the boxes, pulling up roots of dead plants, being careful not to disturb perennials. And plant a dozen good hyacinths, fifty crocus, a few jonquils, and a hundred snow-drops, for early bloom the next summer. When severe frosts come, cover half a foot of coarse manure over your boxes, laying down under its protection your hardy climbers, such as honeysuckles, clematis, trumpet flowers, wistaria, &c., if you have them, or else mat them up carefully in straw or old bass mats.

"Now you have only to enjoy your flowers in the memory of the past summer, or in anticipations for the future, unless, with us, you would have flowers in winter, and will devote an hour each day to window gardening, or study with us, in the next chapter, the *Wardian Case*."

The *Wardian Case* is very fascinating as well as useful and not difficult to manage. The simple fern glass is really a *Wardian Case*, as the idea is only to protect the plants from the varying atmosphere of an ordinary living room. Some very good suggestions are made for hanging baskets and the cultivation of ivy. If we had space for more quotations we should like to give the directions for hot-beds, which are simple, clear and very sensible. A chapter on specimen plants and how to grow them, and one about wild spring flowers are very interesting.

SOIL FOR GRAPES.—The *Ohio Farmer* says: "The Ohio Pomological Society at Toledo, among other things, introduced the question as to the soil on which the best quality of grapes were grown. There seemed to be but one opinion, and that was that a strong, clayey soil, or one of loamy clay with a limestone or even slaty clay subsoil, produced grapes much heavier in must, and therefore of better quality, than any kind of sand or alluvial deposit. In all cases, however, under-drainage was spoken of as necessary to success in grape growing."

SEEDS of the *Cucurbitaceæ*, as melons, squashes, cucumbers, &c., if kept several years, will produce more fruit than new seed, for the reason that they run less to vine.

* FLOWERS FOR THE GARDEN. By Edward Sprague Rand, Jr. Boston: J. E. Tilton & Co. 1863.

JUNE IS THE TIME TO PRUNE FRUIT TREES.

EDS. GENESEE FARMER:—Under the head of "Farm Work for February," in the last February Number of the *Farmer*, you say "prune orchards." In the March Number Mr. Lyman Balcom asks leave to differ with you, and says May is the best time for trimming fruit trees.

In the March Number, after giving Mr. B's communication, you remark, with complimentary acknowledgements of esteem for his opinions, that you would prune both apple and pear trees as soon as all danger of severe frosts was over.

To support your position, you quote Barry's *Fruit Garden*, as saying: "In Western New York we prune apples, pears and other hardy fruits as soon as our severe frosts are over—say the latter part of February and beginning of March. *If pruned sooner the ends of the shoots are liable to be injured, and the terminal bud so weakened as not to fulfil its purposes.*"

It strikes me that Mr. Barry's reason for pruning in February and March is very indefinite and inapplicable. I cannot see how, if he means the ends of the shoots and the terminal bud, that are loped off, we can prune at any time and not injure them. If he means the ends of the shoots and the terminal buds which are left on, I cannot see how the loping off others *can* injure or affect them. I *can* understand Mr. Balcom when he tells us he can saw off limbs two or three inches in diameter in May and they will grow over entirely smooth and sound in three or four years; but if sawed off in February, they will rot holes into the tree and *never* grow over.

Mr. Balcom bears testimony to these facts from personal observation. On the other hand, Mr. Barry lays down a rule of practice, and supports it by a *theory* so vague that it is void on account of ambiguity. With due respect for such authority as Barry and the editor of the *Genesee Farmer*, with whom I seldom find an opportunity to differ, allow me to say that I *know*, from observation and the experience of four years past, directed carefully to the determining of this point, that Mr. Balcom is very near right, and you are quite wrong.

I am aware at what disadvantage I place myself when I undertake to controvert such authority, and would not put the case so strongly in opposition to common practice, had I not in *every instance*, where I have induced any one to try pruning in June, succeeded in gaining their acknowledgement that *JUNE is the time to prune fruit trees.*

Nor would I venture to *advocate* such practice upon my own experience were I not able to give the best reasons for it. Such as cannot be gainsayed or controverted.

It is a question of vital importance to the health and durability of our trees, and should this much find favor in your paper, I will undertake, in the next, to give my reasons for pruning in June, July and August, and suggestions as to why and how we should prune.

E. D. WRIGHT.

[We hope Mr. Wright will favor us next month with the promised article. Any comments we may have to make will be reserved until that time. We may say, however, that it is a well known *fact* that when a shoot is cut off in the winter and severe frosts ensue, the terminal bud (not, of course, the one that is cut off, but the one which we cut back to) is more liable to injury than if the shoot had not been pruned. One reason of this is that when the shoot is cut off the pores of the wood are deprived of their covering of bark and the bud is more exposed, and consequently more liable to injury.—EDS.]

TWO NEW ENGLISH PEARS.

THE *London Gardeners' Chronicle* thus alludes to two new varieties of pears: "One of them is the British Queen, raised by Mr. Ingram, of Frogmore, and said to be a seedling from the Seckel crossed with the Marie Louise. This is a very fine looking pear, and as good as it looks: it has been shown on one or two occasions, and has invariably met with approval. The fruit itself is large and pyramidal, with an undulating surface, and smooth, shining golden yellow skin, here and there freckled with patches of thin cinnamon russet, and on the exposed side often acquiring a crimson flush. In flavor it resembles Marie Louise, the flesh being fine grained and melting, with a rich saccharine juice, and fine aroma. As an autumn pear, ripe in October and November, this has few equals.

"Another to which we especially refer is the Autumn Nelis, a variety raised by Mr. F. J. Graham, of Crawford, a variety of remarkably hardy character, and so compact and short-jointed in habit, that the branches become closely set with spurs. Indeed the whole habit of the tree especially recommends it for culture as a pyramid either out-doors or in the orchard house. The fruit is rather above medium size, obovate-turbinate in the outline, almost entirely russeted on a surface which here and there shows a little patch of greenish yellow. The flesh is yellowish, fine grained, and melting, with abundance of rich aromatic sugary juice, and an exquisite flavor, which has been compared to that of the Winter Nelis. The ripening season is October. The parent tree of this variety has been bearing for some five or six years, and proves to be most prolific. We believe this is the same as a pear Mr. Graham exhibited before the British Pomological Society in 1858, under the name of Graham's Bergamot, when it was considered one of the most delicious pears, but before being let out last year it was re-christened Autumn Nelis.

"There can be no doubt that these pears, both of which have had first-class certificates from the Royal Horticultural Society's Fruit Committee, are acquisitions of real merit, and as such destined along with them to occupy a prominent place amongst our hardy desert fruits."

Ladies' Department.

CHILDREN'S FASHIONS.

THERE is no such thing now as simplicity in the dress of children. It is useless to say that there ought to be. So long as wealth exists, and mothers, who are proud of their children, just so long will taste and fancy busy itself in preparing for them elegant and beautiful, if not useful, costumes.

A number of charming variations in the styles for girls, have been introduced with the jackets, which, in their graceful and fantastic shapes are just as well adapted, if not more so, to misses, as to their mammas. Nothing can be prettier, for a little girl, than a skirt with a bodice-belt, a simple chemisette, and short rounded jacket, trimmed with pendants in some form or other, bows, buttons or tassels.

For parties, and extreme dress occasions, however, little girls follow, in many respects, the fashions of the older ones. Light tarlatanes are puffed and flounced, wreaths are worn, and the dresses often looped-up with flowers. This is an exaggeration which exceeds the limits of good taste. A white dress, simply and prettily made, with sash and shoulder-bows of wide blue, or rose colored ribbon, is the most becoming party-dress for a child; at any rate, until she reaches the age of ten or twelve years.

Boys are less afflicted with the military fever, than formerly. We see now very few fancy military dresses on little boys, in the street. Their clothes, when they get out of frocks, are extremely sensible. They are composed of suits; waist and trousers alike; made in winter, of velvet or cloth, and trimmed with gilt buttons; and in summer of linen or *pique*.

The jackets of still older boys are loose, and long, like short sacks, and their over-garments, altogether in sack style, with, perhaps, the addition of a cape.

Plaid will be much in vogue for children this season, principally as a trimming for their hats, and all sorts of garments. The "Campbell," the "Argyle," the "Stuart," and the "42d," are the favorite patterns.

Very pretty scarfs are netted for children, in colors, or in white, striped with one, or a mixture of colors. Plaid scarfs are also very fashionable.

The shape of children's hats is somewhat different from that of last year, the brim being quite narrow, and frequently rolling. The crown, if any thing, is not quite so high, and often forms what is called the "bell" shape.

Leghorns, trimmed with tartan, are the leading spring style, and constitute a very effective combination. Pendent balls are also used, and very fine and beautiful straw trimming, as delicate as if made of silk.

Of course the principal part of the trimming is always massed towards the front, and it is still elevated, so as to give a look of distinction—which enhances the charm of the always attractive "jockey." Strings for these hats are entirely dispensed with; they are invariably fastened with elastic, passed under the chin.—*Demoiselle's Mirror of Fashion.*

THE VEGETABLE STYLE.—You know (of course you know) that *everything* is plaid this year; bonnets, shawls, petticoats, dresses, muffs, cuffs, boots, gaiters, &c. Even gentlemen are wearing plaid trousers! isn't it funny, dear? But the dresses for evening and dinner parties were delightful. I saw a salmon-colored dress trimmed with green peas, and another flesh-colored evening or dinner-party dress, trimmed with onions, cauliflowers, carrots and little stalks of celery. Vegetables, grass, straw and hay are much worn. Caps are still very high, but trimmed with radishes and onions for young married ladies, who sometimes wear caps, and onions and turnips for dowagers. Young ladies wear much grass for evening parties, with heath and groundsel, which has a very good effect.—*French's Letter on Fashions.*

A EUROPEAN BELLE.—A letter from the continent, describing the Countess of Hatzfeldt, proceeds: "She owns more Oriental shawls than any woman in Europe, and more jewels, and is about to give half of them to her daughter-in-law. One of her morning dresses is a Turkish fabric of silk and pure gold; its pattern, small palm leaves enclosed in strips. The dress is so heavy and thick that it will literally 'stand alone.' The undersleeves and trimming about the neck are of gold lace, and it is negligently fastened at the waist by a golden cord and tassel. Another morning robe is of black material, resembling *moire antique*, with plain stripes of gold enwoven." It is mentioned that the countess's special abhorrence is an embroidered skirt, and her newest dinner dress is a violet velvet, ornamented with gold.

THE BEST SOUP.—Liebig in his *Researches on Food* says: "When one pound of lean beef, free from fat, in the finely chopped state in which it is used for beef sausages or mince-meat, is uniformly mixed with its own weight of cold water, slowly heated to boiling, and the liquid, after boiling briskly for a minute or two, is strained through a towel from the coagulated albumen and the fibrine, now become hard and horny, we obtain an equal weight of the most aromatic soup, of such strength as can not be obtained, even by boiling for hours, from a piece of flesh. When mixed with salt and the other usual additions by which soup is usually seasoned, and tinged somewhat darker by means of roasted onions or burnt sugar, it forms the very best soup which can in any way be prepared from one pound of flesh."

CORN BREAD.—(St. Charles Hotel.)—One pint of corn-meal, one pint of sour milk or buttermilk, two eggs well beaten, and a tablespoonful of melted butter. Dissolve a teaspoonful of soda in some of the milk and add it the last thing. Sweet milk can be used, but then two teaspoonfuls of cream-tartar must be mixed with the meal.

BAKED INDIAN PUDDING.—Three pints of scalded milk; stir into the milk while hot seven tablespoonfuls of meal; let it stand until cold; add four eggs, and bake four hours. Serve with sauce.

Miscellaneous.

PRESENCE.

The wild, sweet water, as it flows—
The winds, that kiss me as they pass—
The starry shadow of the roso
Sitting beside her on the grass—

The daffodilly, trying to bless
With better light the beauteous air—
The lily, wearing the white dress
Of sanctuary, to be more fair—

The lithe-armed, dainty-fingered brier,
That in the woods, so dim and drear,
Lights up betimes her tender fire
To soothe the home-sick pioneer—

The moth, his brown sails balancing,
Along the stubble crisp and dry—
The ground flower, with a blood-red ring
On either hand—the pewee's cry—

The friendly robin's gracious note—
The hills, with curious weeds o'errun—
The althea, with her curious coat,
Tricked out to please the wearied sun—

The dandelion, whose golden shape
Is set before the rustle's plow—
The hum of insects in the air,
The blooming bush—the withered bough—

The coming on of eve—the springs
Of day-break, soft and silver bright—
The frost, that with rough, rugged wings
Blows down the cankered buds—the white,

Long drifts of winter snow—the heat
Of August, falling still and wide—
Broad corn-fields—one chance stalk of wheat,
Standing with bright head hung aside—

All things, my darling, all things seem
In some strange way to speak of thee;
Nothing is half so much a dream,
Nothing so much reality—

My soul to thine is dutiful,
In all its pleasures, all its care;
O most beloved! most beautiful!
I miss, and find thee everywhere!

[Atlantic Monthly.]

VITALITY OF FISHES.—Although the constitutions of fish are in some cases influenced by the temperature of the element they inhabit, and a few degrees above or below a certain temperature will drive them to seek other positions, yet in many cases, they are not so influenced. The fact is well authenticated, that certain species can bear the test of being frozen in solid ice, and, on being gradually thawed, will regain their former signs of vitality; while others have been observed swimming about in hot springs at Manilla and in Barbary, in water of a temperature of from 172° to 185°; and a species of silurus, according to Humboldt, was observed by him thrown up alive with the heated waters of a South American volcano, which were proved to be of a temperature of 210°, or within 2° of the boiling point.—*Technologist.*

ONE of the happiest witticisms on record is related by the Boston correspondent of the *Cincinnati Gazette*: "I heard the other day of a *bon mot* made by Longfellow, the poet. Young Mr. Longworth, from your city, being introduced to him, some one present remarked upon the similarity of the first syllable of the two names. 'Yes,' said the poet, 'but in this case I fear Pope's line will apply:

'Worth makes the man, and want of it the fellow.'

At a recent temperance meeting in Scotland a convert got up to speak. "My friends," said he, "three months ago I signed the pledge. [Cheers.] In a month afterward, my friends, I had a sovereign in my pocket, a thing I never had before. [Loud cheers.] In another month, my friends, I had a good coat on my back, a thing I never had before. [Cheers much louder.] A fortnight after that, my friends, I bought a coffin, because I felt pretty certain that if I kept the pledge another fortnight I should want one." [No cheers.]

DATES AND FACTS.—Dates have been called the eyes of history. In the following instance they enable us to see a curious fraud. At Milan lately, a preacher, in describing the Day of Judgment, said: "And St. Jerome, that great saint, used also to read profane books in his youth; but having one day visited the Vatican, and seen the terrible 'Last Judgment' painted by Raphael, he fled from Rome, and concealed himself in a cavern, to strike his bosom with a stone!" St. Jerome was born in the year 381, and Raphael in 1483.

AMONG HONE'S WORKS, there is this capital rhymed advice to the agriculturists of the date of 1772:

Man, to the plow;
Wife, to the cow;
Girl, to the sow;
Boy, to the mow;
And your rents will be netted.

Punch had sometime since the following travesty on this old rhyme, which is quite as pointed as the original:

Man, tally-ho!
Miss, piano;
Wife, silk and satin;
Boy, Greek and Latin;
And you'll be Gazetted.

DR. MARSH says the best cure for hysterics is to discharge the servant girl. In his opinion there is nothing like flying around to keep the nervous system from being unstrung. Some women think they want a physician when they need a scrubbing brush.

ON A WOMAN WHO HAD AN ISSUE IN HER LEG.

Here lieth Margaret, otherwise Meg,
Who died without issue, save one in her leg.
Strange woman was she, and exceedingly cunning,
For while one leg stood still, the other kept running.
[Author supposed to be Shakspeare.]

THAT man was deeply, nay terribly in earnest, whose coat of arms is a pick-axe, and under it the motto: "Either I will find a way or I will make one."

YOU may wish to get a wife without a failing, but what if the lady, after you find her, happens to be in want of a husband of the same character?

A KENTUCKY schoolmaster wrote and posted up the following: "No swarin, cursin, or runnin abwt lose, or hollerin in this seul."

BUY fair, sell fair, and love the fair. By so doing you will stand a fair chance of leading a fair life.

A NEW SIGN for a tavern has recently been invented: Dewdrop Inn (do drop in.)



Notes on the Weather from February 14th to March 15th, 1864.

As both halves of February gave us temperature above the general average, the first half being 30.2° or 4° above the average, the mean of the month was 28.5° or 2.2° in excess of the general mean. This half in 1837, was 12°; in 1843 was 17°; 1847 was 23; 1858 was 19°; and three times above 36°. The range of the monthly mean has been between 17.0° in 1843, and 33.6° in 1857. On the 16th to the 19th was a cold period, below zero on three mornings, and on two of them 2° below.

Water fell in the month only 1-18 inch; small amount — on the whole a pleasant month.

At Chicago on the 16th, 7° below; Muscatine 9° below; Milwaukee 10° below; Salt Lake 30°, and Portland, Me., 34°, as the cold was moving from the west to east.

March—Began and continued to be in this half pleasant, and above the average temperature. The mean was 34°, or 4° above the general average. The coldest morning was 20° on the 3d, and the warmest noon 57° on the 4th. This too, was the hottest day, 45.7°, and only one other day above 37°.

The water of this half is above 2 inches, and on the 9th to the 12th there fell 1-42 inch. This is a great rain, and the earth swallowed the greatest part of it.

The mean heat of the first half of March has ranged in 27 years, from 19.3° in 1856, to 40.2° in 1854. Prospects for spring vegetation are as promising as usual.

The predictions of a severe winter have passed in a very pleasant one.

The Genesee Farmer Advertisements.

Our advertising columns this month are more than usually filled with the announcements of our business friends. It is our aim to make every department of the paper interesting and useful to the intelligent practical farmer and horticulturist. We have rejected several advertisements that were of a doubtful character. Our circulation the present year is nearly or quite double what it was last year, while our rates have not been increased. This fact may account in part for our large advertising patronage, and another reason may be found in the general prosperity of the country, and especially among farmers. The high price of labor, too, will compel us all to avail ourselves of the mechanical inventions for facilitating the work on our farms. Read over the advertisements. You will find many good things there alluded to, of which you can ascertain more particulars by writing for a circular, &c. Write before the busy season commences.

The Markets.

We are compelled to omit our usual market report. There have been few changes in prices since last month. Clover seed is somewhat lower, owing to the falling off in the demand for shipments abroad. It sells for \$7.50 in this city. Timothy seed \$3.00@3.25. Corn, oats and barley are a trifle lower. Beans have advanced 25 cents a bushel. Eggs bring 20 cents per dozen. Though beef cattle are lower in New York, they still bring 6 cents per lb. live weight in this city. Sheep, and especially *pelts*, are lower.

In England prices have again declined, but are a shade higher in France. The Danish question is likely to be settled without involving the western powers in a general war.

The passage of the "gold bill" by Congress has not, as yet, had any effect in reducing the premium on gold and sterling exchange. Gold is now (March 23d) 64 per cent premium. This time last year it was 140. The issue of the new interest bearing legal tender notes has a tendency to expand the currency, put up prices and increase the premium on gold.

Cash Prizes.

The competition for our Cash Prizes this year has resulted as follows:

I. W. Briggs, West Macedon, N. Y.....	349....	\$50.00
Chas. S. Campbell, Irondequoit, N. Y.....	106....	30.00
Thos. Traganza, Euclid, N. Y.....	79....	20.00
Michael Bitter, Manchester, Md.....	48....	15.00
Benjamin Miller, Espy, Pa.....	45....	10.00
M. B. Snyder, Brighton, Iowa.....	44....	5.00
J. Cuppage, Orillia, C. W.....	43....	4.00
John S. Shattuck, Aurora, Ind.....	42....	3.00

Our friends have done better this year than last, although the highest prize is taken by a smaller club. Those of our agent-friends who have not had their specific premiums, will oblige us by notifying us of the fact, when they shall be forwarded at once.

Our Prize Packages of Seeds.

OUR packages of seeds are now ready, and will be forwarded to those entitled to them as rapidly as possible. We think they will give good satisfaction. They contain twenty varieties of flower and vegetable seeds—certainly a liberal "dollar's worth!"

These packages of seeds are sent to all our friends who get up a club of sixteen subscribers to the *Farmer* at 50 cents each; and in addition to this liberal prize, we also send an extra copy of the *Farmer* and *Rural Annual* for 1864, FREE! There is yet abundant time for any of our subscribers to get up a club and secure these seeds.

Adirondac Grape.

In the advertisement of this grape in the last number of the *Farmer* the printer made a mistake in the amount of discount allowed. It should be 20 per cent., (not 30,) to dealers on bills of \$50 and over. The advertisement in this number of the *Farmer* is correct. The mistake was made in this office, and we regret that Mr. Bailey should have suffered any inconvenience in consequence.

Inquiries and Answers.

I wish to buy a reaping and mowing machine the coming season. Who manufactures the best?—R. S., *Boydton, N. Y.*

This is a question we cannot answer. There are so many excellent machines that it is impossible to say which is best for all purposes. The best we can do is to give you the names of some of the principal manufacturers of reapers and mowers in the United States:

P. Manny, Freeport, Ill.
McCormick Bros., Chicago, Ill.
Adriance, Platt & Co., Poughkeepsie, N. Y.
D. M. Osborne & Co., Auburn, N. Y.
Warder & Child, Springfield, Ohio.
Seymour, Morgan & Co., Brockport, N. Y.
Walter A. Wood, Hoosick Falls, N. Y.
C. Audman & Co., Canton, Ohio.
R. L. Howard, Buffalo, N. Y.

Will some person help me by giving his advice through the columns of the *Farmer*, or by letter, (for which I am willing to pay,) how to break a road horse that has the bad habit of not standing long enough, after being unhitched, for a person to get into a buggy, and if you succeed in getting in, she will start with fury for a run, and if you do not let her go just to suit her, she will get mad and balk, or jam about dangerously, (never kicks.) At all other times perfectly gentle and true to go, but this bad habit makes her almost worthless for me. As she is a valuable animal, I do not wish to dispose of her. Any information how to manage her will be thankfully received.—J. W. BRADY, *Lockport, N. Y.*

CAN you give any certain or even probable remedy for the gooseberry green worm. They are destroying our gooseberries, and then attacking, with a prospect of demolishing, our currants. Biseeving a few hundred with scissors does not even thin them.—S. B. PECK, *Muskegon, Mich.*

CAN you tell me where I can get an Italian Queen Bee, with a few workers, and the price.—T. T. SAVEHET, *Cambridge, Ohio.*

A Good Shorthorn Bull for Sale.

T. L. HARISON, Esq., of Morley, St. Lawrence county, N. Y., offers to sell his well-known Shorthorn bull "Hotspur." He won the first prize and sweepstakes medal at the New York State Fair at Watertown in 1861, as a yearling; at Rochester, in 1862, he won the second prize as a two-year old, (Mr. Sheldon's "Oxford Lad" winning the first prize and sweepstakes medal.) At Utica, 1863, "Hotspur" won the first prize in the class of aged bulls, no sweepstakes prize being offered. He is in high health, vigor and condition. It is not often that those in want of a good bull meet with such a chance.

WE refer those in want of a good farm to the advertisement of Thomas Weeks of Rathbun, Wis. Mr. Weeks sends us a full description of his farm, together with a statement of his crops last year, &c. He is induced to sell from the fact that he has fallen heir to a considerable property in England. He will sell at a great bargain. Write to him at Rathbun, Sheboygan Co., Wis., for particulars.

THE New York State Agricultural Society, at its Annual Meeting, awarded to E. Ware Sylvester the Society's Silver Medal for specimens of Oporto wine.

Book Notices.

HILLARD'S PRIMARY READERS—First, Second and Third. Boston: Brewer & Tileston.

HILLARD'S INTERMEDIATE READER. Boston: Brewer & Tileston.

HILLARD'S FOURTH, FIFTH AND SIXTH READERS. Second Series. Boston: Brewer & Tileston.

This series of Readers seem well fitted for their purpose. The Primary Readers commence with A, B, C, and the most advanced one has at the end of each reading lesson the new and more difficult words selected for spelling. The Intermediate Reader has an introduction containing lessons in Articulation, Pronunciation and Inflection. In this, as well as in the Fourth Reader, the next in the series, the spelling lessons are continued, and with them are definitions of a great number of words. The Fifth and Sixth Readers are for the use of more advanced classes, and the selections, as far as we can judge, are good.

BLACKWOOD'S MAGAZINE.

The February number of this valuable periodical is on our table. The contents are, as usual, most interesting. We know of no other monthly that excels it in the talent of its contributors, or in the value and interest of its articles. The American public owe a great debt to Leonard, Scott & Co. for their reprints of Blackwood and the Quarterlies.

CUDJO'S CAVE. By the author of the "Drummer Boy."

This is a story of the war, and all who have read the "Drummer Boy" will be interested in this. It has rather too much, perhaps, of the sensational in its incidents; but then, while we live at the North, with only the distant sound of war in our ears, we are hardly fair judges of the incidents that might occur to those who, like the hero and heroine in this work, were driven from their homes into caves by the remorseless people who flooded East Tennessee and made it death to love the old Union.

Special Notices.

White Willow for Live Fencing.

HENRY D. EMERY, Editor of the *Prairie Farmer*, writing about the regions of Lee and Ogle counties, says:

"Here I found the representations I had heard, fully realized in long lines of the Willow in the fence row, in all the freshness of their full summer habit. I observed them growing on a variety of soils, both wet and dry; and where care and attention had been bestowed on them they presented a beautiful sight in contrast to the broad stretch of prairie surrounding, without a tree or shrub. For miles scarcely a cutting had failed to grow, even when planted but six inches apart. I have since visited these regions, considerably extending my observations, and more carefully examined them in all stages of growth, from one year up to eleven, and find they do not die out by reason of close planting, but retain their uniform size and growth with wonderful regularity. In no case did I observe a sprout thrown up from the roots when broken by the plow or otherwise in cultivating the ground nearly up to the fence row. The tree seems perfectly hardy, thriving upon both wet and dry ground, and stands the hardest winters uninjured. To sum it all up, it is cheap, hardy, adapted to wet and dry soils, does not sprout from the roots, will stand severe pruning, bears close planting, and with proper training and care will make an efficient barrier to stock in a very short time.

"We think that if some of those *chronic croakers*, who are so constantly taking the opposite position, would be honest enough to make a personal examination of the evidence so easily reached, before they so fully condemn the thing, their opinions would be entitled to much more weight than all their abstract reasonings, wise hints and prophecies concerning the future of the Willow."

M. L. DUNLAP, Editor of the *Illinois Farmer*, speaking of the Willow, writes as follows:

"Its adaptation to soils, whether wet or dry, its hardness under any exposure, its rapid growth and the small cost of making a fence out of it, places it among the prime necessities of the farm. The plants had of you last spring are making rapid growth, and this fall I shall fit the ground for over a mile of inside fence. My outside fences, as you know, are of Osage. Two reasons induce me to prefer the Willow: 1st, that I can have a uniform fence without breaks in the low land, as is the case in low places with the Osage; 2d, the cheapness. I intend to let my fence grow to its full height, but there is no difficulty in the way of cutting it back, as it will thicken up and not kill out by this treatment."

Mr. M. C. WELD, the Associate Editor of the *American Agriculturist*, gives the following testimony:

"My visit to Ogle county, Ill., was in company with gentlemen intimately familiar with the agriculture of the prairies, with the soils and seasons, the crops and modes of culture. We traveled many miles, and examined a large number of localities where the Willow fences are in use. We found a few hundred yards of fence eleven years old, the first planted in this county or State; some also on the same farm, set during the immediate subsequent years—but of fences planted within the past four or five years, particularly that one, two and three years old, we saw miles upon miles, throughout this entire region. Thus the conviction comes to my own mind, that where it is best known the Willow is most highly esteemed."

From the highly creditable recommendations of the White Willow for hedging given above, and the testimony of many others of like tenor in our possession, we trust that some of our farmers will give it a fair trial. Cuttings can be ordered of E. S. PIKE, Esq., of Painesville, Ohio, a responsible gentleman, who warrants his cuttings *genuine and vigorous*.

The Remarkable Properties of Brown's Bronchial Troches have been thoroughly tested since first introduced. The demand for them has steadily increased, and purely upon their own merits, they have found favor with those, who, from Pulmonary, Bronchial or Asthmatic complaints require them. For Coughs, Colds, Bronchitis, Asthma and Influenza, they are entirely efficacious, removing all obstructions, and increasing at once the power and flexibility of the voice.

ADVERTISEMENTS.

A FEW short advertisements of interest to farmers—and only such—will be inserted in the GENESEE FARMER at twenty-five cents a line, or \$2.50 per square, or \$25 per column, each insertion, payable in advance.

THE GENESEE FARMER:

A MONTHLY JOURNAL OF AGRICULTURE AND HORTICULTURE.

Published at Rochester, N. Y., by
JOSEPH HARRIS.

Terms—INVARIABLY IN ADVANCE—Seventy-five cents a year; six copies for Three Dollars, (only fifty cents each.)

Subscription money may be sent at our risk. Address
JOSEPH HARRIS, Rochester, N. Y.

SALESMAN WANTED—Address Franklin Sewing Machine Co., Boston Mass. feb3t

White or Hedge Willow for Sale.

CUTTINGS of this superior live fence plant, of suitable length, at \$1 per 100 or \$5 per 1000. Warranted true SALIX ALBA. mh D. S. HEFFRON, Utica, N. Y.

GRAPE VINES, CRANBERRY PLANTS, &c

THE CONCORD GRAPE—Fine plants one and two years old. GRAPES and TREES in pots for orchard house culture culture. NURSERY and GREEN-HOUSE STOCK. Fine DWARF and STANDARD PEAK TREES. Superior CULTIVATED BELL and CHERRY CRANBERRY PLANTS. The CRANBERRY CULTURIST, postpaid for seven red stamps. WM. H. STARR, East New London Nurseries, New London, Conn. ap1t

Brown's Bronchial Troches.

"I have never changed my mind respecting them from the first, excepting to think yet better of that which I began thinking well of." REV. HENRY WARD BEECHER.

"The Troches are a staff of life to me." Prof. EDWARD NORTH, Press, Hamilton College, Clinton, N. Y. "For Throat Troubles they are a specific." N. P. WILLIS.

"Too favorably known to need commendation." Hon. CHARLES A. PHELPS, Press, Mass. Senate.

"Contains no Opium nor anything injurious." Dr. A. A. HAYES, Chemist, Boston. "An elegant combination for Coughs." Dr. G. F. BIGELOW, Boston. "I recommend their use to Public Speakers." Rev. E. H. CHAPIN.

"Most salutary relief in Bronchitis." Rev. S. SERGENT, Morristown, Ohio. "Very beneficial when suffering from Colds." Rev. S. J. P. ANDERSON, St. Louis.

"Almost instant relief in the distressing labor of breathing peculiar to Asthma." Rev. A. C. EGGLESTON, New York. "They have suited my case exactly, relieving my throat so that I could sing with ease." T. DECLARIE, Chorister French Parish Church, Montreal.

As there are imitations, be sure to OBTAIN the genuine.

ADIRONDAC GRAPE VINES.

FOR SALE by the single one or hundred, and every plant WARRANTED GENUINE. Circulars sent free. Single Vines sent by mail postage paid. Price—1 year old, \$2. 1 year old EXTRA, \$3. 2 years old, 4. 2 years old "5. Fine plants Iona, Isabella, Allen's Hybrid, Delaware, &c. &c. Address ap1t J. W. COLE, Norfolk, Ct.

PREMIUM CHESTER WHITE PIGS.

PROGENY OF HOGS that have taken State and United State Premiums sent by express to all parts of the United States, Canada, Cuba and South America, in pairs, not akin. Address N. P. BOYER & CO., mh Coatesville, Chester county, Penn.

SEEDS FOR SALE.

GARDEN AND FIELD SEEDS—FRESH and RELIABLE, and the BEST that can be obtained from foreign and domestic sources, for sale by E. H. REEVES & CO., Agricultural Warehouse, 185 Water st., New York. Catalogues sent on application. ap1t

PRATT'S LONG ISLAND SEED DRILL.

PRICE, \$7.00. For sale by E. H. REEVES & CO., Agricultural Warehouse and Seed Store, 185 Water st., New York. ap1t Send for Circular.

CHEAP APPLE TREES.

ABOUT 30,000 first class 4-year old Apple Trees will be sold very cheap to clear the grounds. Also, bearing vines of the Isabella, Hartford Prolific and Concord. mh2t A. M. WILLIAMS, Syracuse, N. Y.

THE CULTIVATION OF THE CRANBERRY

is much more easy and successful in the common dry soil of private gardens, market gardens, or in field culture, than in the usual clumsy way in bogs and meadows. The yield last season, in my method of culture, was over 400 bushels per acre. Explicit directions for cultivation, with price of Cranberry Plants and all other useful and ornamental Trees, Plants and Shrubs, will be sent by mail. B. M. WATSON, feb3t Old Colony Nurseries, Plymouth, Mass.

TREES AND PLANTS OF ALL KINDS—Deciduous and Evergreen; Fruit and Ornamental in all sizes, at low rates. Purchasers should send for new Priced List for 1864, before purchasing elsewhere. Carriage paid to Boston, Newport, and New York. B. M. WATSON, feb3t Old Colony Nurseries, Plymouth, Mass.

TO INVENTORS AND PATENTEES—Inventions EXAMINED and opinions given without charge. Patents OBTAINED; Patents RE-ISSUED; Patents EXTENDED. No charge for rejected cases unless successful. J. FRASER & CO., ap2t Western New York Patent Agency, Buffalo and Rochester, N. Y.

SILVER MEDAL—The OPORTO WINE received the Silver Medal of the N. Y. State Society. Strong Vines at retail \$2 to \$4 per dozen—very cheap by the 1000. AGENTS WANTED. Address E. WARE SILVESTER, ap1t Lyons, N. Y.

Choice Garden Seeds.

AMONG the new, rare or very desirable vegetables for 1864, I would invite particular attention to the following: Yokohama Squash (new, from Japan,) White Japanese Melon, Ward's Nectar Melon (most excellent, very prolific,) Marblehead Mammoth Drumhead Cabbage (the largest cabbage in the world,) Mammoth Squash Seed, grown from squashes weighing 100 lbs.; Turban Squash (*best of all Fall squashes*), Early Paris Cauliflower (very early and very reliable), Pierce's Cauliflower (the standard late in Boston market,) Waites' New Alma Cauliflower (this is a famous new English variety.) Each of the above 25 cts. per package. Forty Days' Corn (two weeks earlier than any standard sort,) Mexican Sweet Corn (the sweetest of all corn,) French Imperial Cabbage Lettuce (I rank this at the head of all the Cabbage Lettuces,) Boston Curled Lettuce (most elegant of all varieties,) Concord Bean, (new, most elegant, very desirable,) Fejce Bean (the earliest and hardiest of all Beans,) Indian Chief Bean (the best string bean,) New Jersey Hybrid Cucumber (an extra large white spined variety,) Scarlet Chinese Egg Plant (an elegant ornament,) Lester's Perfected Tomato (very large, thick meated,) Upright Tomato (the new French sort,) Extra Early York Tomato (very early, prolific, of good market size,) Hubbard Squash (seed very pure,) Tom Thumb Pea (very early, grows 10 inches high, yields finely,) Golden Sweet Corn (a sweet table corn of bright golden color,) Brills' Extra Large Purple Egg Plant, Stone-Mason Cabbage (the best of all winter cabbage.) Each of the above at 15 cts. per package, 35 cents per ounce.—My Annual Circular, now ready, contains further descriptions of each of the above, and a list of over 200 varieties of fresh, reliable Garden Seeds, many of which are of my own raising. Sent gratis to all. As the original introducer of the Hubbard Squash, Marblehead Mammoth and Stone-Mason Cabbages, and other choice vegetables, I invite the patronage of the public.

ap2t

JAMES J. H. GREGORY, Marblehead, Mass.

THE NEW SQUASH!**The Turban or Turk's Head Squash.**

SINCE I introduced the Hubbard as the best of all Winter Squashes, I have been seeking for the public a first class Squash for Fall use. After spending six years in carefully testing many new varieties, I am satisfied that the Turban is decidedly the best of all Squashes for Fall use. It is very dry, very fine grained and rich flavored, (the Hubbard has little or no flavor in the fall, and is the thickest meated and heaviest in proportion to its size of all Squashes. It grows to a good size for family use, yields well, and is most excellent either for the table or for pies. In competition with all other varieties my Turban received the prize for quality next to the Hubbard at the late great exhibition at the rooms of the American Agriculturist. Recommendations from Seedsmen, Editors of Agricultural Papers, Provision Dealers and Farmers, will be found in my Circular, which will be sent gratis on application.

Price per package of 50 seeds—25 cents; five packages for \$1.
ap2t JAMES J. H. GREGORY, Marblehead, Mass.

NEW ILLUSTRATED CATALOGUE.**ROCHESTER CENTRAL NURSERIES.****SEND FOR A CATALOGUE**

AND

SPECIAL TERMS OF SALE,

AND

ORDER YOUR TREES DIRECT.

Address

C. W. SEELYE,

ap1f

Rochester Central Nurseries, Rochester, N. Y.

IMPORTANT TO HORSE OWNERS.**Young's New Treatise on the Diseases of the Horse**

IS NOW READY. This work is well written, and in so plain a style that any person can successfully treat the worst diseases that the horse is subject to. The Receipts contained in this work have alone cost the publisher many hundred dollars, and should fully recommend it to the public. Among the list is an infallible remedy for the Heaves; to effectually remove King-Bones and Bone Spavins; to prevent lameness without breaking the skin; also, a certain cure for Wind Puffs, Thoroughpins or Blood Spavins, with many others equally as important—making it one of the most valuable works of this class ever published.—This work should be in the hands of every horse owner. Price, \$50 cents, postpaid. Address CHAS. H. HERRICK,
ap1f P. O. Box 2645, Rochester, N. Y.

TOBACCO SEED.

FOR the benefit of those that wish to commence the culture of Tobacco, I will send GOOD seed for 15 cents per packet.
mh2t JULIUS RISING, Southwick, Mass.

Maryland Farms for Sale.

WE have for sale over Two Hundred FARMS in this State, of as beautiful and productive land as ever the sun shone upon, having access by railroads, steamboats and turnpikes.

These Farms, in many instances, can be bought for less than the improvements upon them cost, in consequence of the change from slave to free labor.

As Surveyors we have an intimate knowledge of the lands of this State. Inquiries by letter will be promptly answered.

E. W. TEMPLEMAN & CO., Real Estate Brokers,
ap3t Baltimore City, Md.

Reading Nursery.

20,000 Concord Grape Vines grown in open ground, 1st layers, \$10 to \$15 per 100, \$100 per 1000; 1 to 3 years, transplanted or bearing vines, \$15 to \$25 per 100.

Diana, Delaware, Hartford Prolific, Crevelling, Allen's Hybrid, &c., Rogers' Hybrid, various numbers, No. 19 layers, \$1 each, \$9 per doz.

Ornamental Trees, Shrubs, Fruit Trees, Strawberry Plants.
Send for Catalogue. J. W. MANNING, Reading, Mass.

WANTED.

Professional Men, Farmers, Teachers,
and other intelligent men, to sell

HEADLEY'S**History of the Great Rebellion**

in each Loyal State of the Union. EXTRA INDUCEMENTS OFFERED. Address or apply to
ap2t HURLBUT, SCRANTON & CO., Hartford, Conn.

NANSEMOND**Sweet Potato Plants.**

OF BEST QUALITY during May and June. Put up safely to carry long distances. Price—500, \$1.00; 1,000, \$2.50; 5,000, \$11.00; 10,000, \$20.00. This variety is hardy and prolific, being profitably grown 44° north. Send for our circular containing instructions in cultivation and experience of those growing them. Address MURRAY & CO.,
ap2t Foster's Crossings, Warren county, Ohio.

CHARLES W. IDELL,**FRUIT AND GENERAL PRODUCE COMMISSION MERCHANT,**

70 and 71 Broad Avenue, West Washington Market, New York.

FARMERS PRODUCE of all kinds, Green, Dried and Canned Fruits, Maple Sugar and Sirup, Pork, Poultry, Butter, Eggs, Game, &c.

Particular attention paid to Fruit. Consignments solicited.
April, 1864.—3t

CHICORY SEED.**THE GREAT SUBSTITUTE FOR COFFEE.**

A SUPPLY of the genuine article just received by the subscriber, and will be mailed postpaid to any address upon receipt of the price. Packets containing 1 ounce, 15 cents; 3 ounces, 40 cents; 1 pound \$1.

Directions for culture accompany each package.
mh2t B. K. BLISS, Springfield, Mass.

Prairie and Timber Farm for Sale

IN WISCONSIN—Twenty-one miles from Sheboygan; highly improved; contains one hundred and sixty acres, one hundred under plow, with necessary breeding stock, farming implements, seed, grain, hay, &c. Possession given at once. Every thing ready for business. For further particulars inquire of the EDITOR GENESEE FARMER.
ap3t

PURE SORGO AND IMPHEE SEEDS.

WE have at great care and expense secured the best seed to be had, UNINJURED BY FROST OR HYBRIDIZATION, of the common Sorgo, Osm-see-ana, Nee-a-za-na (or White Imphee), and Otaheitan varieties. Don't risk doubtful seed.

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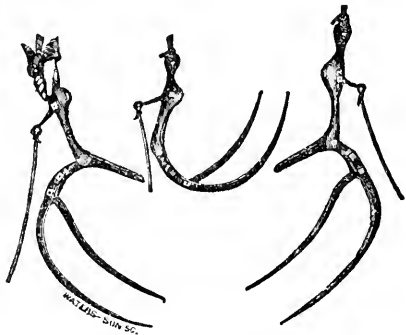
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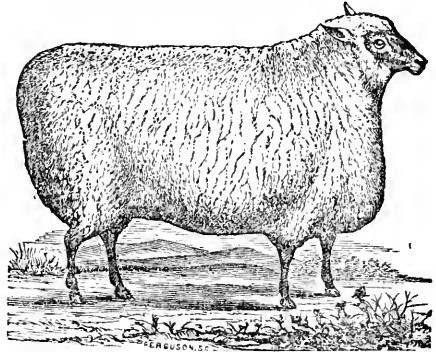
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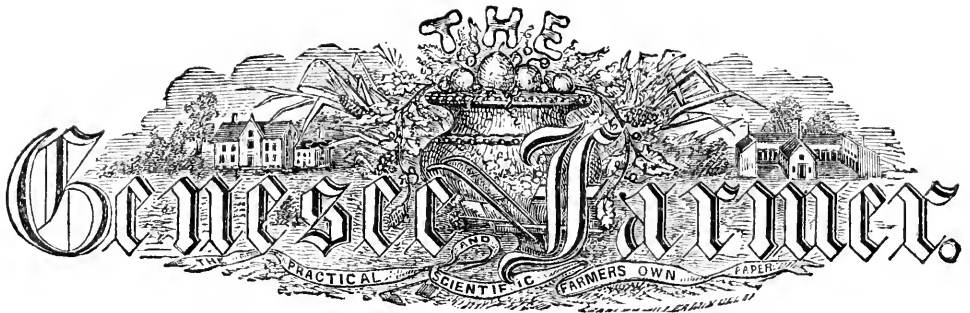
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Persons sending	
\$ 1 may select seeds at catalogue prices amounting to.....	\$1 10
2	2 25
3	3 50
4	4 75
5	6 00
10	13 00

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Address **J. WESLEY JONES,** apit Chatham Four Corners, Col. Co., N. Y.



THE Genesee Farmer

PRACTICAL SCIENTIFIC FARMERS OWN PAPER

VOL. XXV. SECOND SERIES.

ROCHESTER, N. Y., MAY, 1864.

No. 5.

WALKS AND TALKS ON THE FARM.—NO. 5.

TO-DAY (April 8) we commenced plowing. I thought the ground was in good order, but on turning it up it proved to be wetter than I expected.

In England they were sowing barley six weeks ago, while we shall not be able to sow any for a week or more. One reason of the superiority of English barley as compared with ours, is the greater length of the growing season. Barley is sown at least a month earlier than with us, and ripens fully a month later.

Oh! for a thoroughly underdrained farm! What can you do with land surcharged with water. You can not plow it as early by two or three weeks as land thoroughly drained. The labor of plowing, and sowing, and cultivating, is greatly enhanced, while the returns are far less. The best of culture and manuring produce little effect if underdraining is neglected. But who can afford to underdrain with labor at twenty dollars per month and board! All that we can do now is to cultivate the best portions of the farm—get as large crops as possible from a small area, and let the rest go to grass.

I received a letter to-day from an extensive and wealthy farmer in Dutchess county, inquiring the price of bone-dust in Rochester. He says the manufacturers in New York have advanced their prices enormously. He would buy fifty tuns if it could be obtained at a fair price.

It is curious what an effect the high price of farm produce has had in stimulating the demand for artificial fertilizers. If they could only be obtained at old prices, nothing could pay better than a liberal use of guano, superphosphate, bones, &c. The majority of intelligent farmers seem to be satisfied on this point. There never was such a demand for artificial manures in this country as now; but unfortunately we are a year too late. Thousands of tuns of Peruvian guano have been shipped during the last two years from New York and Baltimore to England—of course at a great loss. There was no demand for it here. Tens of thousands of tuns were

annually used in Delaware, Maryland and Virginia before the war, but here at the North, on our stronger land, it could seldom be used with profit. I do not think fifty tuns of Peruvian guano have ever been used in Western New York. Thirteen years ago this spring I got two tuns from New York. At the freight depot the men were reluctant to handle it. After waiting for some time, an Irishman came along. "Och!" said he, "it won't hurt ye. I've handled many a bag of it in the ould country, and mighty good stuff it is, too." Pat told some wonderful stories of its efficacy in producing big cabbages, and to my great relief the guano was soon on the wagons—but not before a Dutchman wanted to get a little to try on his cabbage plot.

Guano then cost \$80 per tun; it is now worth \$114, and there is none to be had at that! I have always considered that guano could be used with great profit, provided we got sufficiently high prices for our crops. Prices are high enough now (in currency), but guano is still higher, and I question whether we can afford to use it at \$114 per tun. For onions, tobacco, and similar high priced crops, it will pay, but for wheat, corn, &c., we should have to get very high rates to make it profitable. But I think we shall see high prices. I shall not be surprised if wheat is \$3.00 a bushel before this time next year, and other things in proportion.

I sold five head of cattle to-day. I intended to keep them until June, but the butcher called so frequently that I was at length induced to fix a price at which I would sell them. I asked \$10 a head more than I thought they were worth, and \$15 more than was offered for them. The butcher laughed at me. I told him that I did not think they were worth the money, but that I would keep them until they were. Other butchers that called were told the same thing, and also that they would be sold to the first man who would pay the price named. To-day the butcher called again and offered me \$5.00 a head more than before. I told him my price, and if they were not worth it I would keep them until they were. He was evidently afraid to leave them any

longer, and paid me the money for them.

Cattle this week in New York have again advanced fully one cent per pound. They are now higher than ever before known.

Great are the virtues of cold water! My little pony hurt herself badly on the gambrel joint. I suppose she was kicking at another horse, and hurt herself against the stall. It so happened that as I was going to the farrier, I met Dr. M., one of the ablest physicians in the city, and asked him what I should do. "Bathe it well with cold water," he said. I did so, but the next morning the leg was much inflamed and swollen, and the pony could not stand on it. I got a sponge and a pail of cold water, and let the water fall in a stream on the inflamed joint. I did this three or four times a day, and also rubbed the leg thoroughly with a little sweet-oil where the skin was broken. In three days the swelling went down so that I could use the pony, and she is now as well as ever, except a little scar where the skin was broken.

What is the reason it is so difficult to get men to clean horses properly? It is rare to see a well-groomed horse in a farmer's stables. I think the great difficulty lies in neglecting to clean them at night after they are brought in from their day's work. The men will use the currycomb and brush to a certain extent in the morning, but they will let a horse remain all night covered with sweat and dirt.

Sheep have advanced this week one cent a pound. I saw a butcher to-day driving a fair lot of sheep to the city that he said he had bought at seven dollars a head. In his wagon he had a couple of calves, one three weeks old, and the other three days. I asked him what he was going to do with the latter. "Oh," said he, "the farmer threw it in with the other. He was agoing to knock it on the head any way. I thought that it was worth carrying for the skin." I presume that he will contrive to use something more than the skin. I should not care to dine next week with some of his customers. Butter is so high that good veal will be scarce this spring, and "Bobs" very plenty. I once heard of a Methodist minister stationed in one of the dairy districts of England who in his visits among the brethren in different parts of the circuit, was daily dined on veal of extremely tender age. On one occasion his hostess asked him if he liked veal? He replied with more feeling than eloquence. "Yes, madam, but I do not like *cauf*."

The New York *Tribune* in its last report of the cattle market, says: The market continues crowded with calves that have been "knocked on the head with the milk-pail. Indeed, many of them have never known the taste of milk. They are taken from the cow as soon

as dropped, and sent to market, and it is said that the first milkings, which they naturally should have, goes at once into the "pure country milk" cans. This and the next grade of calves, such as have sucked three days or a week, are so plenty that they are somewhat dull, while the few good calves that arrive sell very quick at the high rates that have prevailed, that is 9@10c. per lb., live weight. We noticed a sale of a large lot this morning at 5c. that averaged 85 lbs.; others sold by the head at \$2 50 each."

The butter speculators have come to grief, and all the New York papers say, "served them right." Some of them who bought at 40c. to 50c. per lb. in the country are compelled to sell at 25c. to 30c.

It is quite probable that butter advanced much higher than the real state of the market warranted, and the present reaction is the natural consequence. That good butter will rule high the present season. I have no sort of doubt. The New York papers mention "the reported arrival of 500 packages of butter by the last steamer from Liverpool." Butter in England, according to the last London *Mark Lane Express*, sells for 12d. to 14d. per lb.—from 24c. to 28c. per lb. Now 28 cents in gold is equal to 47½ cents in currency. In other words, this butter, if of good quality cost in Liverpool from 40 to 45 cents per lb., and to this must be added the expense of bringing it by steamer to New York.

It is possible that the butter was brought as reported, but it is quite evident that those who imported it must have found it a losing business. I am disposed to think it a story got up by the dealers for the purpose of frightening the holders of butter. With gold at 170 there is no prospect of butter being brought here from Europe.

The demand for fruit and ornamental trees this spring, as I predicted nearly three years ago, is greater than ever before known in the history of our Rochester nurseries. The *Democrat* of this morning states that "owing to the excessive demand for cars caused by the shipment of trees eastward, the Central Railroad authorities have notified customers that no more stuff can be received for four days!" We are certainly getting to be a great fruit-growing people.

There is a general impression that manure increases the potato rot. I do not know whether there is any foundation for it or not. All the experiments I have made on potatoes were with artificial manures, and I never could see that these in any way increased the disease. I have not the figures at hand, but some years ago in some experiments I made on potatoes and which I have never published, the plot without manure was very seriously affected with the rot, but

the adjoining plot on which plaster was used there was scarcely a rotten potato to be seen, and the yield was considerably larger.

The last number of the *Journal of Agriculture* contains the record of an experiment made to determine the relative value of manure made under cover, and manure exposed in the barn-yard. Both manures were applied to potatoes at the rate of 20 tons per acre. The yield was:

Manure from barn-yard 252 bushels per acre.

Manure from covered sheds 297 bushels per acre.

The potatoes were entirely free from disease. If manure is well rotted I can not see how it would increase the tendency to rot. I should think it would have just the opposite effect.

Australia is justly celebrated for the high quality of its wheat—but it seems that there, as in all other countries, farmers have their trials. It appears from the *Farmers' Journal*, published at Melbourne, that the recent harvest, which takes place at the commencement of our spring, will turn out a disastrous one. The wheat crop has been nearly destroyed by *rust*. It is a new enemy in Australia, and the farmers, like many in this section, when the *midge* first made its appearance, are talking of abandoning wheat culture!

Of course they will not do it. They will learn, as we all have to learn, that there is no crop of any importance that has not its enemies. To give up the culture of a crop because of them is simply absurd. Study the habits of the depredators, and use the proper means to destroy them—and you will overcome.

A gentleman in Canada has kindly sent me a few seeds of the New Zealand flax. He has a friend in that country from whom he received the seeds, with the following description of the plant:

"It grows fifteen or sixteen feet high—the leaves seven or eight feet long (where the fiber is), and which the farmers cut into five or six lengths for bag strings, each piece of the raw leaf making one string. The flowers are scarlet, filled with honey-water—and bees!"

My Canadian friend adds: "I send you these seeds, thinking that if the plant could be acclimated it would prove useful—at least for rough purposes on the farm. For instance, I should think, from the above description of the strength of the leaves, that a few would make a halter-rope without going to the manufacturer, and so on. I shall sow some seed, and if I succeed and you do not, or *vice versa*, we can interchange another year, and give each other's experience in the *Genesee Farmer*. I send you this, also, that you may know that, although we have a *Canada Farmer* here, we still have a leaning for our

old friend on the other side." I will sow the seeds, and shall be happy to reciprocate in the way proposed.

One of my horses was lame the other morning, in the fore foot. I sent him to the blacksmith, and the man came back with the unpleasant announcement that it was caused by a corn. "He has cut it out," he said, "and put tar on it." The next morning the horse was so lame that he could scarcely walk. I sent for the blacksmith and had the shoe taken off. With his rasping-knife he cut away the corn as deep as he thought safe. I thought it should be cut out more thoroughly, but he said it was then cut out to the soft part of the foot, and to illustrate it he roughly pressed his finger on the spot, when the poor horse of course, flinched. This, however, did not satisfy me. I told him if he had an inflamed corn, the head of which had been rasped off, he, too, would flinch, if I stuck my nail into it. I then took a sharp pocket-knife and carefully cut round and under the corn. I had not proceeded far before I cut into a quantity of pus! No wonder the horse had flinched under the hard thumb-nail of the blacksmith!

Having washed away the pus with a sponge and water, I kept on cutting carefully, and finally succeeded in removing nearly the whole of the corn. I put on a bran poultice to allay the inflammation, and the next morning put on some burnt alum to eat out some proud flesh that had made its appearance. The horse improved at once, and is now (only three days afterwards) nearly recovered from his lameness.

They say that corns can not be cured, but I do not see why. Youatt says that corns on horses "are a disgrace to the smith, a disgrace to the groom, and a disgrace to the owner!"

A gentleman living in Dedham, Mass., wrote me to-day that "farming is at a heavy discount" in that neighborhood. They are surrounded with factories of all kinds—cotton woolen, copper, shoes, brass, iron, furniture, beds, twine, &c., &c. Young men from further back in the country go there to work in the factories—and *not* in the corn fields under the hot sun. "Irishmen," he says, "are not valuable as farm laborers, not knowing our ways, soil or climate, and it is natural for them to always do the wrong thing when they can. Besides telling them what they must do, it is necessary to go ahead of them and tell them what they *must not do*. The result is that comparatively little is done in farming. The land looks worse every year." Hay is worth \$25 per ton, and they can not afford to feed it out on the farm, and consequently can not make manure, and without heavy manuring their soil produces nothing. Manure would cost him \$8.00 per cord, and five to ten cords per acre, and day wages at \$1.50—all taken together kill farming. "We must depend," he says,

"on the West for every thing except the most perishable articles, such as vegetables, milk, and small fruits. We are such railroad people that milk brought one hundred miles every night appears on the breakfast tables of the Boston people at a lower price than we can raise it and cart it twelve miles."

I think the picture is rather exaggerated. But there can be no doubt that "competition with the West" will tax the ingenuity of all farmers in the Atlantic States until the time comes—as come it will—when the rich soil of the West will have been deprived of its virgin fertility, and the increasing population will consume nearly all that can be raised. Even now prices for most farm products at the West are nearly as high as with us, and some articles are dearer.

George W. Massey, of Indiana, writes me that he thinks if the manufacturers of reapers and mowers would get up a good, cheap and simple stump machine, and advertise them in the agricultural papers, it would increase the sale of their reaping machines to an extent they little imagine. The idea is not a bad one. One of the incidental advantages of the introduction of reaping and mowing machines is that it compels us to clear our land of stumps and stones.

A gentleman in Canada writes me that he saw an advertisement in the *Farmer* of Chester White Pigs, and wishing to purchase a sow from twelve to fifteen months old that would farrow in a few weeks, he wrote to the parties asking if they had such a sow, and what would be the price for her and a boar? They replied:

"Your's of March 5th has been received. We can send you a boar pig, ten months old, weight about 300 pounds, and a sow that will pig about the middle of April. She is about fifteen months old, weighs about 480 pounds. These pigs have both taken premiums, and are very fine. The price for a pair will be \$80, which will be about 10 cents per pound live weight. Pork is worth \$12 per hundred pounds here at present. You can soon clear the price of the pair by letting the boar out to service, and selling some of the pigs. We have some a little smaller, very nice, that we could sell you for \$60. Also, a pair for \$50, and one for \$40, the sows to pig about the same time. You can send the money to us by mail."

The gentleman sent them \$84 for the pair first alluded to—\$4 being to pay freight, and a receipt for the money was returned, with a promise to ship the pigs on the 4th of April. The pigs were forwarded. But instead of the sow promised, and which was to have been in pig, and to weigh about 480 pounds, she was not in pig, and weighed only 225 pounds! And this was not all. She was deformed

in her hind quarters, and to all appearances will never have strength enough to breed.

Our Canadian friend justly feels aggrieved. The express charges amounted to \$25 55, which he says he should not have paid had he seen the pigs before doing so, as the pigs are not worth the charges!

I have just put in a cistern in the new barn I am building. The *American Stock Journal* says that horses must not be allowed to drink water from rain-water tanks in their stables. That much deleterious matter soon gathers in these tanks, and that consequently the water is injurious to the horse. Is this so? I have known horses that kept in good health for years that drank water from a pond that received the drainage from a barn-yard. I do not think it well to compel horses to drink such water, but the fact that they remain healthy proves that they are not so susceptible to injury from drinking impure water as the *Stock Journal* would have us suppose. It is a great convenience to have water in the stable and carriage-house, and by spouting all our buildings and collecting the water we can obtain a full supply.

AN exchange says that this war in Denmark, which we have looked upon so indifferently, having so much on our hands at home, is likely to have quite an effect upon our markets and our currency.

Prussia is a great grain-producing country, and England depends upon the four or five million bushels of wheat which she exports annually. This will be cut off. The blockade of the Belf stops commerce with the Baltic, which will make the expense of carrying grain from Western to Eastern Europe as great as from New York to Havre. Consequently, should this war continue, the wheat market would advance, and our exports bear a better proportion to our imports. Farmers are advised to turn up fallow fields, turn over the old sward, and turn under good loads of manure. They have the promise of a ready market for all that they can raise. By raising all which is in their power, they assure the defeat of the rebels, non-intervention from Europe, an improvement in foreign exchange, and the financial, as well as the military, success of the Government."

CURE FOR SPAYIN.—Add two table-spoonfuls of melted lard, one of cantharides, made fine or pulverized, and a lump of corrosive sublimate as large as a pea—all melted up together, and applied once a day till used up, confining it to the callous. This quantity is for one leg, and may be relied on as a cure. It will make a sore, and the joint will be much weakened while applying the medicine. No need of alarm; it will all be right when healed up. *Farmer and Mechanic*,

“WHAT BREED OF SHEEP SHALL I KEEP?”

EDS. GENESSEE FARMER: Can you, or some one of your numerous correspondents, inform the farmers of Canada of the difference in the cost of keeping the Leicester and Cotswold and the South Down or Merino sheep? Will the difference in the cost of feed between the long and short woolled breeds compensate for the loss of mutton? In view of the scarcity of cotton and the consequent increased value of wool, as well as the growing demand for mutton, these questions I consider of great importance just at this time.—TH. HANCOCK, *Newmarket, C. W.*

REMARKS.—The question raised by our correspondent is one of great importance. Looking at the subject in all its bearings, however, it is a question that can not be easily answered.

As a general rule, where sheep of different breeds are equally well bred, there can be little doubt, from the experiments of Mr. Lawes, that sheep consume food in proportion to their live weight. As, however, this is a matter on which many experienced breeders disagree, and as the question turns on this point, it may be well briefly to allude to these experiments.

The breeds selected for the experiment were the Sussex Down, the Hampshire Down, the Leicester, the Cotswold, and half-bred wethers and half-bred ewes.

The Sussex Down, which was brought to great perfection by the labors of Ellman, is a very small sheep, with short and very compact wool. This breed is admirably adapted for upland and scanty pastures, where larger breeds would starve. The mutton commands a higher price in London than that of any other breed.

The Hampshire Down is a larger and coarser breed.

The Leicester, brought to such perfection by Bakewell, is, when pure, larger than the Sussex Down, but not quite so large as the Hampshire Down. Contrary to the generally received opinion in this country, it is really a small breed. It yields a large quantity of long wool, and, in rich pastures, possesses great aptitude to fatten. The Canadian Leicester, though a very useful sheep, is not the original Bakewell Leicester. He probably has a dash of Cotswold blood in him, and is much larger than the genuine Leicester.

The Cotswold is one of the largest breeds of sheep. The wool is very long and of good quality. The mutton is of rather inferior quality, but the Cotswold fattens so rapidly that it has not inappropriately been termed “the poor man’s sheep.”

The half breeds used in these experiments were a cross between a Leicester ram and a Sussex ewe.

The sheep for these experiments were selected by good judges, from the best flocks in England. Mr. Lawes says: “Letters were written to breeders of eminence (those being generally selected who had

obtained prizes for their sheep,) requesting them to select fifty wether sheep, born the same year, and representing fairly the breed required for the experiment. No limit was set upon price. The sheep were sent about the month of September to the farm, and they were kept upon ordinary food until the middle of November. At this time the sheep were about nine months old, having been lambed about the February preceding.”

At the commencement of the experiment in November, the sheep being about nine months old, the fifty Cotswolds weighed on an average, 119 3/4 lbs.; the Hampshire Downs, 113 1/2 lbs.; the Leicesters, 101 lbs.; the half-bred wethers, 95 lbs.; the half bred ewes, 91 lbs.; and the Sussex Downs, 88 lbs. each.

The experiments lasted from five to six months, the sheep being weighed at the end of every four weeks. The quantity of food consumed was accurately ascertained.

The following table shows the average amount of food consumed weekly by each sheep:

	Oil-cake.	Hay.	Turnips.
Cotswold,.....	8 lbs. 1 oz.	6 lbs. 14 oz.	113 lbs. 4 oz.
Hampshire,.....	5 lbs. 0 oz.	7 lbs. 0 oz.	106 lbs. 10 oz.
Leicester,.....	5 lbs. 13 oz.	5 lbs. 9 1/2 oz.	85 lbs. 12 oz.
Half-bred wethers,.....	5 lbs. 14 oz.	5 lbs. 9 1/2 oz.	82 lbs. 13 1/2 oz.
Half-bred ewes,.....	5 lbs. 9 1/2 oz.	5 lbs. 4 1/2 oz.	75 lbs. 0 oz.
Sussex,.....	6 lbs. 3 oz.	5 lbs. 14 oz.	79 lbs. 1 oz.

The average rate of increase per head per week was:

Cotswolds,.....	3 lbs. 2 1/2 oz.
Hampshire,.....	2 lbs. 12 oz.
Sussex,.....	2 lbs. 13 1/2 oz.
Leicesters,.....	2 lbs. 1 oz.
Half-bred wethers,.....	1 lb. 14 oz.
Half-bred ewes,.....	1 lb. 13 1/2 oz.

By ascertaining how much water there was in the quantity of food consumed by the different breeds, we are enabled to see exactly how much *dry food* was eaten. This was done. Then, by taking the weight of the sheep at the commencement and at the end of the experiment, we are enabled to determine their mean weight. Thus, if a sheep weighed 100 lbs. at the commencement of the experiment, and 150 lbs. at the conclusion, we should call its mean weight 125 lbs. Now, if this sheep eat 3 lbs. of dry food per day, we say that the amount of food consumed by 100 lbs. of live weight would be 2.4 lbs. per day. (If 125 lbs. eats 3 lbs., 100 lbs. will eat 2.4 lbs.) Knowing the weight of the sheep, then, at the commencement and at the end of the experiment, and also the quantity of total food consumed (and the exact quantity of dry matter which it contained,) we are enabled to calculate how much 100 lbs. of live weight of the different breeds consumed of dry food per head per day. The result was as follows:

Cotswolds,.....	2.16 lbs.
Hampshire,.....	2.01 lbs.
Sussex,.....	2.01 lbs.
Leicester,.....	2.15 lbs.
Half-bred wethers,.....	2.02 lbs.
Half-bred ewes,.....	2.03 lbs.

In commenting on these figures, Mr. Lawes re-

marks: "Although there is a general impression among agriculturists that large sheep eat proportionally less than small sheep, it is evident that *equal weights of sheep consume equal amounts of food.*"

If this is true—and we think there can be no doubt on the point—the small Merino sheep will consume much less food than the South Down, and still more so than the Leicester and Cotswold. In fact, a Spanish Merino sheep will, on the average, weigh not more than half as much as the above breeds, and consequently we can keep two Merino sheep on the same food as is required for one Leicester.

We think it will be admitted that the Merino sheep, *in proportion to size or live weight*, will afford more wool than the Cotswold, Leicester or South Down; and it would seem clear, therefore, that, so far as the production of wool is concerned, if fine Merino wool sells for no more than coarse wool, the Merino is the most profitable breed to keep. But of course it will not do to leave the mutton out of the calculation. There can be no doubt that Cotswold, Leicester or South Down sheep will afford more mutton in a given time than the Merino, and we think it is equally certain that they will afford more mutton *in proportion to the food consumed*. These breeds mature much earlier than the Merino, and the mutton, as a general rule, is of better quality, and certainly commands a high price.

After all that can be said in regard to the relative advantages of the different breeds of sheep, much will depend on the taste and experience of the farmer—as well as on the character of the soil and the system of agriculture adopted, and also on the relative price of mutton and wool.

If a farmer has a *good* flock of sheep of any of the above breeds, it is not wise lightly to change the breed. If you have a good flock of mutton sheep, do not give them up, simply because wool happens to bring a high price, and you may think that it will, for the time being, be more profitable to keep sheep principally for their wool, because by the time you have effected the change the probability is that the market will have changed also.

BEST TIME TO PAINT HOUSES.—Experiments have indicated that paint on surfaces exposed to the sun will be much more durable if applied in autumn or spring, than if put on during hot weather. In cool weather it dries slowly, forms a hard, glossy coat, tough like glass, while if applied in warm weather, the oil strikes into the wood, leaving the paint so dry that it is rapidly beaten off by rains.

SURE CURE FOR SHEEP-KILLING DOGS.—Skin the sheep killed and salt the carcass with strichnine. Have the wind blow the fumes from you in salting.

OHIO FARMERS.

THE Hon. Simon Brown, of the *New England Farmer*, in his letter from the Wool Growers' Convention, at Columbus, Ohio, says he saw a field of three hundred acres, with the corn standing in shocks upon it, which he was told by a native of the place (Columbus) has been planted for more than fifty years in succession, in corn, without any manure having been applied to the field! "One might suppose," he says, "that in such a prolific soil, abundantly supplied with several species of the finest timber, such as hickory, rock maple, oaks of several kinds, white wood or poplar, elms, and here and there tracts of hemlock, and watered by frequent and ever-flowing streams, the country would present the most attractive aspect, and abound in those minor graces of fruit and flowers, which adorn as well as sustain rural life. But it is not so. For hundreds of miles as I passed along, I saw very little orcharding or fruit trees of any kind, or gardens. The houses, for nearly the entire length of Lake Erie, are little fifteen feet by twenty things, with one to five small, toppling, patched-up sheds, for a pig, cow or horse, and generally without a barn! I did not see half a dozen wood-sheds filled with dry wood in the whole distance! A great many of the houses are of logs, plastered between, the posts not more than eight feet high, and unpainted. They are rarely enclosed, and are generally surrounded with old stumps, rotten logs, fence rails, a dilapidated wagon, and one or two dogs! No garden—no little smooth lawn before the door—no palings—no shed crammed with dry fuel for such a season as this (January)—no nothing whatever indicating that the people possessing this generous soil are an intelligent, industrious and thrifty people. Cattle all along the way were roaming the barren fields, browsing on dry weeds or decaying wheat-stubble, and shivering in the cutting blast. Many of them were standing, gradually contracting their limbs as if to make the last plunge to mother earth. How they are sustained is a mystery. I saw few stacks either of hay or straw. The corn-fodder is generally left in the field. Sometimes the cattle were there, overturning the shocks and trampling upon what they did not eat.

"I am aware that the portions of country over which I passed, on the railroad, may not be of so good soil, or so highly cultivated, as they are on the country roads—that is generally the case—but the indications, all along, even in the villages, did not suggest a considerable degree of refinement, intelligence or thrift. This can not be the fact, however, in many portions of the State of Ohio; for underlying all this is a colossal power, which is making itself felt more and more every day. It has had a Legislature but fifty-six years, and yet has 2,500,000 people.

POULTRY HINTS FOR MAY.

WRITTEN FOR THE GENESEE FARMER BY C. N. BEMENT.

If April was a busy month with the laying hens, May will find many of the early layers (the Brahmas) engaged in the pleasing task of incubation, or engaged with their younglings; and now *our* care of them demands particular attention.

As soon as the hens come off with their broods, they should be confined, for a day or two, in a moderately warm room. The chicks should at first be fed with crumbs of bread moistened with milk or hard-boiled eggs chopped fine. After the little chicks have gained some strength, the mother hen and her little family may be cooped and placed, if the weather be fair, in a dry, sunny situation. The coop should be large and airy; and here a very great error prevails with many in confining the hen and chickens in much too cramped and narrow quarters, to the no small inconvenience of the mother, say nothing about the great danger of the chicks being killed by the tread of the hen. In nine cases out of ten the coops are entirely too contracted, low and uncomfortable for the mother and her young. Just draw a comparison between a hen and her brood confined in a small, low, contracted room, hardly sufficient for her to turn about, much less to carefully brood her young, with a large, airy apartment, well protected from heat, wet or cold, and sufficient space for exercise.

In order to keep the chickens in good health, so confined, it is essential that the greatest precautions should be taken to ensure cleanliness in all departments; therefore the coops should be cleaned out daily, and the floor covered with sand or fine gravel, to prevent any portion of filth adhering to the floor. Fresh water, in clean vessels should be placed before them morning and afternoon. Impure, filthy water may be set down as a main cause of all the diseases poultry are subject to—diarrhea, gapes, and other maladies.

But do not let our good-natured readers be frightened by the minuteness of these directions, for at a later season the chickens may be left much more to themselves, only let them remember that if in possession of good fowls, and they desire to have healthy chickens at an early period of the year, their chance of success will be infinitely increased by following our advice.

Chickens hatched the latter part of May and June may be confined in the coops only about two weeks, after which they may be allowed their liberty, and they will thrive far better than when confined either in courts or coops.

FEEDING.—Here lies the great error. Suppose a dozen or so of persons were to be fed by placing be-

fore them half a dozen legs of mutton and as many loaves of bread, from which they were expected to eat as often as they get hungry, they would shortly tire of the over-familiar viands, loose appetite, and become what breeders of poultry know so well as "out of condition." All poultry feeding which consists of throwing down food which the chickens can make a hearty meal and leave a quantity to return to and eat hours afterwards, is bad; and if an endeavor be made to restore lost condition by administering tit-bits—meal, barley, cracked corn and the like, it will be about as little advantageous as it would be for the before-named provider of stale mutton and bread to try and restore the eaters' appetite with meals of turtle-soup, jam, honey and cream. For fowls to do well, they should be fed when they are hungry, and hungry when they are fed. It is not easy to name the quantity which chickens will eat, or the number of meals a day that they will require, as these continually vary according to their age, and the opportunity they have of catering for themselves. We have found old fowls thrive well on three meals a day, while chickens, until they reach cocks' and hens' estates, want ten, seven or five, according to their age. Young chickens require a little very often. When they fail to be hungry for every meal, reduce the number of meals. When they are not found to be hungry for seven meals a day, reduce the number to five, and so on; and most likely the chickens will go to work upon their food as healthy chickens should. The food also should be varied—a poultry "bill of fare" may be made very lengthy. For standard dishes we have corn, barley, buckwheat, oats and boiled potatoes; then there are millet, sunflower seeds, crushed oats boiled, to vary the diet, especially for the young; and for casual change we have boiled carrots, wheat-screenings, fresh meat, and any item that presents itself.

Perhaps we cannot better illustrate what we have said above than by giving particulars of the way in which a stock of chickens are managed. As soon after six o'clock in the morning as is compatible with the habits of the family in which very early rising is not essential, the chickens should have a meal of cracked corn. Indian meal not with water, generally used, should *not* be given to very young chickens. In all subsequent meals quite enough should be given to satisfy hunger, but there should be no overplus. We fancy we hear some reader exclaim, "Oh! must we stay and see the chickens eat their food to know that they are satisfied?" To which we unhesitatingly answer, Yes! But this need necessarily entail no loss of time, as if there are three or more lots all may be fed simultaneously; and if there is only one, a feeder who wants to make much of time can leave and return. At nine A. M. the half-fed chickens may have a meal of barley,

boiled potatoes mashed with shorts or corn meal; at twelve the chickens may have as much barley as they like to eat, and some lettuces or cabbage leaves, or any greens which may be comatable. At three P. M. a good meal of cracked corn; at five they may all be fed on boiled potatoes mixed with Indian meal and fed warm. Following the rule to feed when fowls are hungry, and not to feed until they are hungry, makes frequent change necessary in the number of the meals, and consequently in the hours at which they are given; and with regard to the kind of food, the more varied the feeding can be in that respect the better, provided all pampering be carefully avoided. The more the food is scattered the better. Throw it well abroad, and when the fowls or chickens are no longer anxious to run for it, hunger is appeased.

CARE OF CHICKENS.—As to the casualties arising from the neglect or ill-treatment of servants, every farmer who has live stock to be tended has had ample proofs. There is a peculiar idiosyncrasy in some individuals which fits them to take charge of certain animals. Some females have quite a passion for bringing up poultry, and by their care and kindness will rescue apparently moribund chickens from the jaws of death. A clever old woman, or a little girl ten or twelve years old, makes an excellent poultry tender; boys are generally as mischievous and untrustworthy as monkeys. When there is any thing in hand requiring peculiar watchfulness, it is not a bad plan, if possible, to attend to it one's self.

THE DUCKS now require attention. Ducks generally commence laying the latter part of March and continue to lay until May, if the sitting did not intervene and interrupt the bird. They are not generally inclined to sit; but to induce them to do so, toward the end of laying take away their eggs, being careful every morning to take away the oldest in order that they may not spoil. From nine to thirteen eggs are allowed her, according as she is able to cover them.

The only time the duck requires some care is while she sits. As she has but little time to spare to procure her meals, food and water should be placed near her; and she is content with it, let the quality be what it may. It has even been remarked that when she was too well fed she did not sit well; for that reason she should be portioned.

Incubation, like the goose, lasts thirty days; and the first broods are generally the best, because the warmth of summer helps to bring them about. The cold always prevents the late broods from getting strong and giving as large ducks.

Every duck of the same species is far from giving proofs of much foresight, for the preservation of the warmth of her eggs. It often happens that they let

them cool. Besides, hardly are the ducklings born when the mother takes them to the water, where they dabble and eat at first, and many of them perish if the weather is cold.

For the foregoing reasons it is well to sit hens on ducks' eggs. Being more assiduous than ducks, these foster-mothers have more affection for their young, will watch and guard them with more attention, and as they are unable to accompany them on the water, for which ducks show the greatest propensity as soon as they are excluded, they follow the mother hen on dry land, and become a little hardy before they are allowed to take the water without any guide.

On hatching there is no necessity of taking away any of the brood, unless some accident should happen; and having hatched, let the duck retain her young upon the nest her own time. On her moving with the brood, prepare a coop and pen upon the short grass, if the weather be fine, or under shelter if otherwise; a wide shallow dish of water, often to be renewed, near by them. Their first food should be crumbs of bread moistened with milk; curds, or eggs boiled hard and chopped fine, is also much relished by and is good for them. After a few days corn meal *boiled*, and rolled between the hands, and if boiled potatoes and a few chives or lettuce chopped fine be added, all the better. As soon as they have gained a little strength, a good deal of pot-herbs may be given them raw, chopped and mixed with a little bran soaked in water, barley and potatoes beat up together. They are extremely fond of angle-worms and bugs of all kinds, and for which reason they may be useful to have a run in the garden daily. All these equally agree with young ducks, which devour the different substances they meet with, and show, from their most tender age, a voracity which they always retain.

The period of their confinement to the pen depends on the weather and strength of the ducklings. Two weeks seem the longest time necessary; and they may sometimes be permitted to enjoy the pond at the end of the week, but not for too great a length of time at once, least of all in cold weather, which will affect and cause them to scour and appear rough and draggled. Care must be taken that the water where they are at liberty to go contains no leeches, which occasions the loss of the ducklings by sticking to their feet.

Look out for mud-turtles and bull-frogs in the water; cats and rats on land—all enemies of young ducks. When young, ducks are exposed to many dangers and mishaps. Their waddling gait quite unfits them for running from a foe on land, and they are but too apt to be trodden on by horses, cattle, and even by the foot of man.

FARM WORK FOR MAY.

THE prominent labors of this month are the completion of sowing spring crops, where this has not been already done, and planting hoed crops.

CORN.—The amount of this crop raised is more controlled by good and bad management than almost any other. Many farmers are satisfied with thirty bushels per acre—they should average at least eighty bushels—over one hundred may be often reached. The requisites for success are a well prepared, rich soil, and constant and clean cultivation. The former claims especial attention at present. A sward inverted to a moderate depth is a favorite mode of planting; it succeeds admirably if it has been well manured on the surface the previous autumn, the rains carrying the enriching portions into the soil. On good ground this will often make a difference of twenty to twenty-five bushels per acre. Inverting the whole sod perfectly will save much hand hoeing. Rolling and then harrowing lengthwise with the sod is the common mode; but Share's harrow, (if made with steel teeth,) accomplishes both these operations in one, and mellows the soil twice as deep as common harrowing. Mark the rows perfectly straight and even—this will allow the horse cultivator to run closely to the rows. In strong or heavy soils never plant over an inch deep—in light soils not over an inch and a half. Experiments have shown that beyond these depths the corn is smaller and longer in coming up. When manure is applied in spring, it should be fine and thoroughly intermixed by harrowing. In lumps it will be of little use.

The old fashioned way of frightening crows and blackbirds was the erection of effigies known as scare-crows. Cords stretched across the field, if sufficiently numerous, will repel crows; but the best way is to tar the seed. To do this right, dash hot water on a half bushel of corn, which by draining off quickly will heat the surface of the grain without killing the germ. Then pour on a pint of hot tar—every grain will become thinly coated—then dust with air-slaked lime, which is best, or with plaster. No bird will touch the seed when planted. Gas tar can not safely be substituted, as it often kills the germ, or coats it so that water can not enter. Plant all missing hills with the earliest sorts, that all may ripen together.

Dropping concentrated manure into the hill gives the plants an early start, and increases the amount of the crop. As old corn is better than new for fall feeding, a substitute may be obtained by planting an early crop of the Early Canada, which will be hard and dry, while common corn is yet soft.

POTATOES.—To raise potatoes to a profit, it is important to avoid much hand hoeing. Let the ground be therefore perfectly clean. If mellow and smooth,

it may be managed as follows: Plow furrows three feet apart, and drop the pieces a foot and a half in the row, then with a one-horse plow, or what is better, with a large toothed one-horse cultivator, the central tooth being removed, cover the row, leaving a ridge over it. Let it remain about two weeks, or just before the potatoes come up, then harrow the whole surface lengthwise. This will be as good as one thorough hoeing by hand. Potatoes planted eighteen inches asunder in the row will give nearly double the amount obtained from hills three feet apart. No farmer should be satisfied with less than three hundred bushels per acre of potatoes.

ROOTS.—Plant a good supply of field beets, carrots, rutabagas and parsneps. A daily supply of these in winter, mixed with dry food, will contribute largely to the health and thrift of domestic animals. Many farmers fail in raising these crops by not attending to the three essential requisites, viz: a rich soil, clear from weeds, and keeping the whole so well cultivated that weeds can not start. All novices in raising rutabagas allow four times too many roots to grow. They should be thinned about a foot and a half apart, if the soil is as rich as it should be. Planting any of these crops on any other than a well-enriched or manured soil, is a waste of land and labor.

CORN FOR FODDER, may be sown at the close of the month, for early cutting or for soiling—for either purpose, it should not all ripen at the same time. The best way is to sow in furrows or drills—by plowing, harrowing and marking out in furrows three feet apart, then strew the grain from the basket into the furrows by hand, at the rate of three bushels per acre, and cover with a harrow. Nothing farther will be needed, but passing the one-horse cultivator after the plants are up. It is often sown too thin, making tall but coarse stalks; when sown broadcast it is apt to be weedy; but sown in thick drills, about drills, about three bushels per acre, is best.

BUCKWHEAT.—Although this crop is not sown for some weeks yet to come, the ground should be well prepared or mellowed for some time before hand. Let this preparation be not postponed until the last moment.

CALVES.—To raise good calves they should be fed the whole season, and one great secret of good management is to avoid any sudden changes in their food. (See the directions on this subject in last month's *Farmer*.)

SORGHUM.—This should be sown as early as the corn crop. Many cover the seed too deep. They are smaller than corn, and should never be buried more than an inch.

There are several operations of smaller importance which should not be overlooked. Fences around pastures should be strong and secure. Buildings and

fences may be whitewashed now to advantage. The work should be done on a dry, warm day—when the whitewash will enter the pores of the wood. Painting, on the other hand, should be deferred till autumn, when the coat will harden better, and it will become more durable. Orchards, which were transplanted in autumn, should have the crusted soil about the young trees well broken and made mellow. It is leaving this hard crust untouched that has induced many to think that autumn planting for hardy trees is not so good as in spring. Coarse manure may be made into compost heaps for fall use. Mulleins and thistles should be dug up in pastures, and all early-starting weeds should be destroyed.

CORN MARKERS.—There are various modes of marking corn for the straight rows described in the preceding article. One of the best markers consists of three runners, about three feet long, six inches wide, and three inches thick, placed three and a half feet apart, and well braced. A common wagon tongue may be attached to it. The driver walks behind the central runner, and ranges between the horses with his eye. The rows being three and a half feet apart, he employs stakes ten and a half feet long to range by, and removes them as he passes, measuring accurately their length each time; or a second person may remove the poles. The marker steadied by the tongue will form very straight grooves in the soil. For cross marking, employ the chain marker. It consists of a light pole, with trace chains suspended from it, at distances for each row, or three or three and a half feet apart, as may be desired. Two men take the pole near each end, and one of them acting as guide and ranging accurately, they walk forward, dragging the chains in the soil, making a fine smooth line for each chain. Six or seven chains may be employed without inconvenience, and the field marked off with great rapidity. By the first of these implements, a man and a team will mark more than an acre, and by the use of the second, two men, or a man and a boy, will mark two and a half acres, in walking a mile.—*Tucker's Annual Register.*

A MONSTER HOG.—John W. Copeman, of Cayuga county, N. Y., it is said, has a cross-breed hog, stated to have weighed in May last 1120 pounds, in September 1249 pounds, in October 1276 pounds, and in December he weighed 1340 pounds, and has been growing rapidly since, and will probably now weigh 1400 pounds. His breed is said to be Leicester and Suffolk, with a slight cross of Berkshire.

THE BLACK THORN FOR FENCES.—A correspondent of the *Valley Farmer* has become thoroughly convinced, from experiments made, that the common black thorn, which grows wild in our woods and prairies, is peculiarly adapted for fencing.

CLOVER HAY FOR HORSES.

Dr. R. McCURE, of Philadelphia, a veterinary surgeon of good repute, takes ground in favor of clover hay for horses. He says: "There is at present an endemic disease in the horses in this city (Philadelphia,) one of its chief characteristics being an almost complete loss of appetite, at least so far as partaking of the ordinary timothy hay, oats and corn are concerned. But the sick horse *will eat* clover hay, and unfortunately that can not be had in any stable in Philadelphia, if it be not where cows are kept. Why is this the case? Simply because there is a prejudice existing among all classes of horsemen, and from them communicated to the owners of horses, against feeding this kind of hay. First, because it is said that clover hay produces heaves, and secondly, because it is said that it is not respectable to be seen feeding with clover hay, as it looks parsimonious. These opinions concerning this article of food are so widely and firmly fixed in the mind of almost every groom and stableman, as well as horse owner, in Philadelphia, that I believe it has been the cause why most farmers are not found giving it cultivation to the extent that it ought to be, or as its superiority as an article of provender demands. Let us now examine, in brief, the objections that are laid against it. It is said it will produce heaves in horses. The idea is false as well as preposterous. It possesses no greater agency in producing such an effect upon horses, or any other animal, than is possessed in common by any other article of food. If broken wind is produced by an article of food, it certainly is not from the food, but from the *quantity* that is given. In like manner heaves may be caused by too great a quantity of water, oats, corn, or any kind of hay whatever, given at an improper time, as when the animal has a journey to perform. In a word, it is the person's fault in giving too much food at an improper time, and not the character of the food that thus produces heaves in the horse. The man who, when feeding a horse, would fill its manger with oats and corn, would not be considered a very fit man to feed and care for horses, neither is that man who would fill a large rack full of clover hay; as the animal will not stop eating until it has hurt itself, or has eaten every blade of clover before it; as every horse is fond of it, and as before stated, sick horses will eat it when they will not eat any thing else. Without another word the argument is complete.

"Good clover hay contains 45 per cent. more fattening matter than timothy hay, and about 40 per cent. more than the English rye grass hay; about 10 per cent. less than dried lupins or vetches, which are now extensively used in Europe for the feeding of both horses and cattle.

"Such is a brief statement of the peculiar, profitable, and I may as well say palatable advantages accruing from the feeding of horses, as well as other animals, on clover hay in preference to any other hay in use in feeding and fattening."

SHORT SERMONS FOR FARMERS—No. 5.

WRITTEN FOR THE GENESEE FARMER.

THE flowers appear on the earth; the time of the singing of birds has come, and the voice of the turtle is heard in our land. SONG OF SOLOMON.—2: 12.

SPRING has been celebrated by poets of all ages. It is the period when the vegetable world rises from the death of winter—the time when all nature awakes to joy and gladness—the time when the husbandman, full of hope, goes forth to "open and break the clods of his ground, and to cast in the principal wheat, and the appointed barley, and the rye in their place." In this labor he is cheered, not only by the hope of harvest, but also by the joyous activities of all nature. The flowers, the singing of birds and the voice of the turtle, all conspire to animate him in his daily toil. Dull and brutish indeed must be that soul which has little sympathy with the joyous voices of spring.

We are accustomed to regard the various seasons of the year, spring, summer, autumn and winter, as the results of natural law entirely. But if we consult the Bible we shall find that these changes are ascribed to direct divine agency. Human philosophy is, that they occur according to the natural laws, which operate without the immediate exercise of divine power and wisdom. It is wonderful how man has succeeded in hiding his ignorance through the invention of terms which ignore a present, living, acting God in all the works of his hand—in all the operations of nature. The philosophy of the Bible is simple and satisfactory to a mind unperverted by "philosophy falsely so called." It is this, that God controls all nature by a direct exercise of his wisdom and power. We say, according to human philosophy, that it is a law of nature to operate thus and so, when the fact is, that the exercise of the divine agency in nature is uniform, ordinarily, and yet it is sufficiently various in all departments of nature to convince a reflecting mind of his immediate control over all its operations and changes. Referring to spring, the Bible says: "Thou renewest the face of the earth." Here the direct agency of God is declared in producing the change in the natural world which we appropriately call spring. When, then, all nature rises to newness of life, and gladness, inviting the husbandman to go forth to his labor, let him be impressed with the truth that winter is passed and gone, not by a blind and unintelligent law, but by the direct agency of him who has promised that seed-time and harvest shall not fail—by him who "re-

news the face of the earth." How delightful to the husbandman who loves God and who confides in his wisdom and power is the consciousness that he is surrounded by so many cheering evidences of his presence and goodness while preparing his ground and casting in his seed. Many a good man's heart leaps for joy in his toil while he reflects upon the presence and agency of him who has never failed to reward his labor. How much is the beauty and the joyousness of spring increased by the dreariness and desolation of winter, which it succeeds. The contrast is like that of adversity and prosperity—of war and peace—of sorrow and joy. Good is always enhanced by its succeeding evil. The sudden life and beauty of spring in contrast with the death and desolation of winter brings a joy to those who dwell in a northern climate, to which those who reside in everlasting spring and summer are strangers. This joy of spring is in accordance with the law of compensation which manifests itself throughout all the works of God. If he gives the elephant a short neck, he gives him a long proboscis as a compensation. So, he gives us the beauty and joyousness of spring to compensate for the desolation of winter.

REMARKS.—1. Spring is seed-time. He who neglects now to cast his seed into the earth, will reap no harvest. So our life under the gospel is seed-time. He who neglects to sow to the spirit cannot reap life everlasting. Let the husbandman then, while sowing his seed, reflect whether he is improving the seed-time of grace and preparing for a newness of joy in the eternal world.

2. Are you in trouble? Let them not be cast down. The winter of suffering, if you trust God, will soon be gone and the spring of joy will succeed. Cast your cares upon God who careth for you—then the life and joy of spring will symbolize your future blessedness when the winter of this life is passed.

3. Are you neglecting, wholly, this seed-time of eternal joy? Your earnestness and energy in preparing for a harvest of the fruits of the earth reprove your inattention to your spiritual interests. In this respect, what you sow you will also reap. "Light is sown for the righteous, and gladness for the upright in heart." If you sow to the flesh you will reap corruption.

4. Are you a believer, and have you fallen into a state fitly represented by the dreariness of winter? Let the new life and activity of spring arouse you to return from your wanderings and in a spiritual sense to do with your might what your hands find to do.

5. Spring fitly symbolizes the resurrection of the body and the glory which shall then be revealed. Our bodies which are in the grave, as the roots of plants are in the ground during the winter, will be reanimated and will put on the glory of an eternal spring. Happy is he who hath part in the first resurrection.

AMERICA AT THE HAMBURG EXHIBITION.

THE Hon. Joseph R. Wright, of Indiana, who was selected by the United States Government to attend to our interests at the late International Exhibition at Hamburg, has made an official report to the President. The following extracts will show, though owing to the war we were not as fully represented as could have been desired, yet those who did exhibit met with the most gratifying success:

"On my arrival at Hamburg, two weeks prior to the opening of the exhibition, with a view to the reception and proper management of American articles, which had been sent forward in considerable numbers, I found that the most ample arrangements had been made for holding the exhibition.

"The extensive grounds (covering more than eighty acres) were laid off with great taste and liberality. Substantial sheds, halls and buildings, were erected for the accommodation of more than four thousand entries of stock. In addition to this, space admirably adapted for machinery of all kinds—locomotives, steam-engines, steam-plows, farm implements, mineral products, artificial manures, plants, trees, flowers, fruits, seeds, and all this, too, so beautifully arranged in the midst of the flags of more than forty nationalities, as to add to the comfort of the thousands assembled to witness this the first international exhibition in Northern Europe.

"Eight of the States, to wit: New York, New Jersey, Massachusetts, Rhode Island, Illinois, Connecticut, Vermont, and Indiana, were represented by delegates from the States, or their agricultural societies, who were received with your commissioner with every token of respect and consideration which could have been desired for the representatives of our country.

"Thirty-four nationalities were represented at the exhibition in their contributions, including, among other things, four thousand and one hundred of the finest horses, cattle, sheep and swine, (several of the reigning sovereigns of Europe being numbered among the contributors.) The show of horses was over six hundred. Hanover received the highest praise for the speed, size, elegance, and strength of her horses. She also divided the honor with Great Britain in showing the best and purest blooded cattle.

"More than one thousand persons were contributors and competitors in this national contest for superiority.

"Three thousand machines and farm implements were contributed, and seventy-five steam engines of every variety were used in operating the power and machinery. It was no show of mere art, painting, design or fancy; but one of *substantials*, consisting mainly of stock and machinery.

"The principal portion of the machinery came from

Great Britain, none of which is more deserving of special attention than that of plowing by steam.

"Some two thousand sheep were exhibited, comprising nearly all the best breeds of Europe. It is believed to have been the largest show of fine woolled sheep of modern times. The great nurseries of Merinos of Prussia, Saxony and Silesia, were fully represented, and the exhibition was the more interesting from the fact that nearly all of the continental breeds were present, some of them extensively, embracing also the best stocks from England. It affords me great pleasure to state that George Campbell, of Westminster, Vermont, was the most successful in competing for the premium on Merinos. He had three hundred and fifty competitors, yet he had awarded to him two first-class, and one second-class premium. His success was most gratifying, and the more so from the fact that the committee awarding to Mr. Campbell this well-deserved triumph were unanimous in their opinion, and each member composing the committee represented different nationalities. Mr. Campbell sold his sheep on the ground to Count Sherr Thoss, of Silesia, for five thousand dollars.

"The exhibition of American machinery and implements received a great accession from a most liberal donation, from several of the leading German merchants, bankers and citizens, of the city of New York, including a complete assortment of agricultural implements. These, with the premium reaper, contributed by Mr. McCormick, in connection with many other articles from other American contributors, are to form the *nucleus* of an *agricultural museum*, to be established in Hamburg. This I regard as the most gratifying result attending this international exhibition to American interests.

"Several thousand dollars were subscribed before I left Hamburg for this object, and doubtless it will be carried out by the well-known liberality of her citizens.

"The establishment of this museum, or depot, opens for all time to come a place of deposit for American skill and products. Hamburg is the third city of trade and commerce in Europe. Hamburg is the key, not only to the great German mind, but the open door-way to more than one hundred and fifty millions of the people of Northern Europe. With Hamburg we have rapid and almost daily communication, and it is difficult to estimate the advantage which will accrue to our mechanical skill and industry, our manufactures, our commerce and trade, by the location of a museum for their deposit in a city situated like Hamburg, whose merchant princes hold in their hands the immense trade of Prussia, Austria, Sweden, Denmark, portions of Russia and the Zollverein States. *Trade and commerce invariably bring together men whose interests are affected thereby; men will follow the fruits of their labors to market.*"

HEAVY HAY CROP.

THE *Boston Cultivator* contains an official report of the farm management of E. W. Clapp, of Walpole, Mass. Among other interesting points, it is stated that he has within two or three years reclaimed an unsightly ten-acre bog, formerly of no value whatever, by cutting ditches around and through it. Three acres are already brought into excellent grass, and yielded last year between three and four tons of hay per acre. As farm machinery is extensively used, the owner finds it greatly to his advantage to employ mowing-machines, Bullard's hay-spreader, the wheel horse-rake, and Palmer's horse-fork. The hay-spreader is obviously of great advantage on such heavy meadow, drying the hay in much less time, and in a more perfect manner. The horse-fork is found to be a great saver of labor, a ton of hay having been pitched off in six minutes. We have known it to be done in half this time when all the appliances were ready, but some time is always necessarily required in attaching the horse, arranging the machinery, &c., so that ten or fifteen minutes will be consumed by common farm workmen, who would otherwise be more than half an hour in pitching off by hand. But the time thus saved is only one important advantage: the horse-fork obviates the very severe labor required for hand-pitching, so that the men are fresh and vigorous when they go to the field for the next load, and consequently they pitch it on in much less time, and do not become worn out with a single day's work.

The barn on this farm is 100 feet long—basement nine feet high, its floor of water lime cement; pens for the swine are in front, and having access to this basement. They work over into compost manure as it falls from the animals above. The swine are furnished with food steamed in boxes or vats—the steam being brought in an underground pipe 100 feet horizontally, to prevent danger to the buildings from fire.

THICK SEEDING OF OATS.

THE *Boston Cultivator* says that, as a general thing, in sowing oats, we do not sow seed enough to produce the best crop. "Having occasion some years since, to look into the statements accompanying premium crops of this grain, in different parts of the country, we found that nearly all the great yields had been produced by heavier seeding than farmers in this section usually give. Instead of two to two and a half bushels to the acre, these large crops were grown from three to four bushels, of seed per acre. We should prefer not less than three bushels to the acre for soils of medium richness, though on those very rich, somewhat less, say three bushels—on account of the greater tendency of the plants to tiller, or spread on such soils—might answer."

A YANKEE FARMER.

THE New York correspondent of the *London Spectator* thus expresses his opinion of the farmers of this country:

"Let me tell you a little about one of these Yankees whom I know well, and in whose house I have lived for weeks at a time. He is a small farmer, tilling less than one hundred acres, which have been owned and tilled by his family for generations, and living upon that and a little money out at interest. He not only goes to the fields with his men, but works with them there. I have many a time seen him riding home on a load of hay, a good part of which had fallen before his own well-swung scythe. Now, what do you think that man's recreations are? Chiefly astronomy. A fine observing telescope is his hobby. He is up with it in the middle of the night, and before the dawn, upon all good opportunity. His library, not large, but well chosen, is so thoroughly and intelligently read by him, that some of the soundest and most pungent opinions I have ever heard upon literature have come from his lips in English, than which no better, according to the standard of Oxford and Cambridge, is spoken anywhere. His brother, the rector of the parish, the pretty stone church of which was built in a large measure by the contributions of their forefathers, was offered and refused the bishopric of his diocese. The word 'farmer' conveys to you a certain idea or image. Does it convey the idea of such a man as this? From my observation, I should judge decidedly not. And yet this man is only a farmer, and the son and grandson of Yankee farmers on both sides. But you will say that this man is a very rare and marked exception. But in that you will be wrong. Somewhat exceptional he is. But he represents a class very numerous and widely diffused; and he springs from and is in direct affinity with a class which is numbered by hundreds of thousands of men, besides women and children. I have heard from his cousin, the miller, (a working miller, mind you, although he owns his mill), as sensible and as well expressed opinions upon all matters (literature included) as I have from him."

COTTON FROM UTAH.—The *Los Angeles News* of February 17, says: "Some two weeks since a few bales of cotton from Southern Utah arrived at San Pedro, en route for San Francisco. During last week, as we learn from a citizen of Wilmington, thirteen mule teams and wagons, laden with cotton from the above-named locality, also arrived at our port for shipment." The Utah cotton is said to be white and generally of the same character of the best upland of Texas. The *California Farmer* says that such a cargo as this will be an exciting event in San Francisco. The cargo consisted of 130 bales, weighing upward of 11,000 pounds.

BUTTER-MAKING NOT A MYSTERY.

THE *New England Farmer* has a communication from a correspondent, "A. W. C.," with the above heading. The Editor calls attention to it by a note, in which he says: "We know from long experience that the opinions advanced by the writer are correct. If his suggestions were followed by all, there would be little difficulty in producing good butter at any season of the year." After some introductory remarks, "A. W. C." says:

"How do you make such nice sweet butter in winter?" is a question often asked by my customers, as I carry them their usual allowance of fresh butter for the week. Sometimes I answer, 'I will tell you when you go to farming.'

"For me, it seems a very simple thing to make butter that is good and uniform through the whole year. But, were it simple to all, butter would hardly command the present high prices.

"Some one asked through your columns not long since, how to make good butter in winter. I would answer, "Make it just as it should be made in summer." Yet as you may not think that a very definite explanation of the process, I will tell you how good butter can be made in summer.

"A butter dealer said to me, the other day, that were he engaging a dairy for the season, he only wished to see a sample of the August or dog-day butter. If that were satisfactory, he would take his chance with the other two ends of the season.

"There are about five or six weeks in spring and fall, when, I suppose, every farmer's wife can make a fair article of butter. It will almost "make itself," with good June or September feed, in a clear, dry, June or September atmosphere, with the mercury indicating an average of 60°.

"What else causes butter made in June, September and a part of October, to bring better prices than that made at any other time of the year? But for the dairy to yield a generous profit through the whole year, a fair article must proceed therefrom every week. Everybody can not be supplied through dog-days with June butter; nor can every family have their tubs for winter filled in September.

"Now if you can bring the dairy under the same conditions, in August or December, that prevail in June and September, why should you not realize the same results? Doubtless you would. But this it seems impossible, at present, fully to do. Yet I think the secret of success in butter-making is to bring about these conditions as nearly as may be.

"In the first place, you must, of course, have good cows. Some cows will make a large amount of high colored butter, but it is too soft to handle well in any weather, especially when very warm; others yield an article too white to be attractive, though I con-

sider color of much less importance than solidity. As far as my observation has extended, very yellow butter is not as good as that which is lighter colored. It is apt to be oily, caused, I think, first, by being naturally soft, and second, by the consequent over-working it usually receives; the buttermilk being less readily extracted from soft butter.

"Good cows obtained, the next requisite is good feed. And what can be better than June honeysuckle 'up to the eyes,' or clover aftermath in September? Probably nothing. I prefer, however, as a matter of health, to give a feeding of dry hay every day through the season. I can thus keep them more uniformly, and not subject them to sudden changes from green to dry food.

"But what for feed the remainder of the year? Why, get the next best thing—which is the same, cut and cured, for feeding in the stall. During the third week of last June I cut four or five acres of clover and red-top, the clover just coming into flower, the red-top showing its flower stalk. Sixty days after, I cut the same field again. This winter, the cows, to which both lots are fed, seem to know no difference between the first and second crop. It is all rowen to them. I am fully of the opinion that very little of the hay in New England is cut as early as it should be. For dairy cows, I would prefer it all cut before blossoming, rather than after.

"A large butter dealer and a good judge, tells me that he has known his mother to make just as good and just as yellow butter in winter, while her cow was being fed solely on rowen, as she could ever make in summer, from the same animal. I think he came very near the truth.

"But to supply yourself with a stock of *June atmosphere*, in which to set your milk and do your churning, through dog-days, is not so easy a thing as to cut your hay early, and afterward a crop of rowen. The thermometer does not usually stand at 66° from July to September 1st, nor do you generally have a clear dry air at that season.

"Hence I do not expect you can make your best butter, or that which will keep the longest, during this period, unless you can secure these two requisite conditions, viz., moderate temperature and dryness of the atmosphere. But the nearer you can contrive to approach these conditions the better your success.

"I keep my milk, during the extreme hot weather, in my house cellar, a large, light, airy room, clear of all boards and wooden utensils not used for milk; the whole room thoroughly whitewashed. The windows—a north, south and west one—are open or shut, darkened or not, just as may be needed to keep the air of the room as pure, as dry, and at the same time as cool as it can be under the circumstances. I consider a damp atmosphere worse than a very warm one for milk. It makes the cream thin and watery,

requiring much more care and longer time in churning.

"I need not say that I do, or that you should, set your milk in the pans two or three inches in depth, and skim it up at twenty-four or thirty-six hours old, putting the cream in a tin pail or stone jar, stirring it occasionally; for that almost all dairymen and women do. But when I say you should never commence a churning unless your cream is known to be at a temperature not any below 60° nor higher than three or four above that point, I can not, at the same time, say everybody does that, for I do not know of one dairyman or woman, except through the books, who is exact in this respect.

"All butter-makers think that if cream is warm it will come too quickly, be soft and white, and not pleasant stuff to manage, and if too cold it will swell and foam, and not come at all—some one asserting that 'it did almost come, but went back to cream again.' One dairyman, who usually has good luck, told me this winter, that he churned all one day and then gave his cream over to the pigs, only wishing he had done it sooner.

"Up to last April, I occasionally, and not very unfrequently, had just such 'luck.' Since that time I have used a common fifty cent thermometer—selecting one that would slide easily in the case, or that I could dip the bulb into the cream without the case.

"When I have gathered a sufficient quantity of cream I try it by the thermometer, and if the temperature be from 60° to 64°, I churn it immediately. If not within those limits, I bring it there, by some means, before it goes into the churn. I keep my cream in a large tin pail that can be hung in the well the night before churning—not *in* the water, but just far enough down to have the cream at 60°, when churning is commenced. Placing it *in* the water makes it too cold: and cold cream is addicted to the same freaks in summer as in winter.

"In Spring and Fall 62° does well; in winter, 64°; but in summer the temperature will rise rapidly enough if you commence at 60°. I never want butter to reach a higher temperature than 66° at the time it separates from the buttermilk.

"Following this method, I have not had the shadow of a failure for ten months. My summer and winter butter have come about equally well, varying from fifteen to forty-five minutes, according to the ripeness of the cream. I think it does no harm to run a bucket of cold water through the churn after the milk is drawn off. If the butter is a little too soft, as it almost always will be in summer, it does much good by hardening it before salting. My butter is taken from the churn to a butter worker, like the small simple one figured in Flint's work on Dairy Farming—a book, by the way, that every man or woman who expects ever to make a hundred pounds

of butter should read through twice, as a preliminary step. In this worker the butter is salted, then returned to the well for twelve hours, after which it is thoroughly worked. And here I find a great advantage in the worker over the hands. If butter a little too cold is worked in summer, by hand, it will grow much too warm before the buttermilk is expelled; while the worker will do it quickly, thoroughly, and without causing the oily taste so commonly found in hard-worked butter.

"So much for summer butter. And now, to make good, sweet, yellow butter in winter, you have only to secure the same conditions that are best for making summer butter, namely, good cows, rich feed, a dry air in which to raise the cream, and a temperature as near 60° as it is possible to preserve. The latter condition is much more easily obtained in winter than in summer; for by artificial heat the air can be kept at the proper temperature in the milk-room without being made damp, while the same result can not as readily be obtained in summer with ice, on account of the dampness accompanying it. Indeed, I believe that more butter, and that of a good quality, can be made from a given number of quarts of milk, in winter, than can be through the warmest weather.

"Finally, in butter-making, as in ship-building, or surveying, strike the word "luck" from your vocabulary. Learn your trade. Learn the laws that govern your work and obey them. Be not outwitted by heat or cold, by wet or dry, but press them all into your service, and be master, and not slave, of the fluid forces of nature."

HIGH PRICE OF PRODUCE.

Eggs have sold the past winter for 40 cents a dozen; butter is now selling for 50 cents a pound; cheese from 16 to 18 cents a pound. These are retail prices. A gentleman remarking upon the high prices of produce, not long since, was replied to by another, who said, "It is the low value put upon bills of credit, circulated for money, that makes prices seem so high," adding, that "A man may go to the market and buy butter with gold as cheap as he could three years ago." "Not so," said the latter. The former gentleman went to Faneuil Hall market the day following, and every dealer he inquired of said that gold will buy as much produce, of any given kind, as it would three years ago. Gold being the acknowledged standard of value, and not the bills of non-specie paying banks, persons can only know things and prices, relatively, by the golden test, as applied above. One of the best mutton stalls in the market had 35 carcasses weighing about 3,500 lbs. They cost about \$19 a head, and were from the State of New York. Pork, of good quality, sold last week for 12 cents a pound; Chickens, fresh and nice, 40 cents a pound. *Boston Cultivator.*

LICE ON CATTLE, &c.

MR. HARRIS LEWIS, an excellent dairy farmer, of Herkimer county, thinks that a man who winters a good, thriving stock of lice, on say forty head of cattle, does so at an expense of about \$200. He informs the *Country Gentleman* of a remedy which has proved cheap, safe and effective with him, and which should be borne in mind by stock farmers for future use, viz: He rubs a small quantity of unguentum (mercurial ointment) on the stanchions in his stables, for a distance of perhaps two feet, up and down, covering the edges which the cattle come in contact with. As this does not kill the nits, the operation is repeated at intervals of eight days, three times, by the end of which period they will all be pretty certainly hatched out and destroyed. A fourth application may be required, but he finds three almost invariably enough. A small quantity is only required, a very light coating serving the purpose, and by this method of application the cattle can not get at it with their mouths, or otherwise receive any injury from it.

Another point in Mr. L.'s management worthy of note is this: He keeps salt in tubs in his cattle yards, constantly accessible to the stock, with which is mixed sulphur, in the proportion of about a tablespoonful to a quart of salt. This practice was begun some years ago, as a precaution against the murrain, for which purpose it was found effective, and it has been continued from the favorable influence it exerts upon the general health of the cows. Since its use, Mr. L. has had but a single case of garget in his herd, and he ascribes this exemption from that very troublesome difficulty among dairy farmers, solely to the use of sulphur.

WHY IS IT?

EDS. GENESEE FARMER: Why is it that our brother farmers on the opposite side of Lake Michigan do not raise winter wheat, while Western New York, and we in the same latitude, with only a sheet of water between us and them, have quite a sure crop, (barring the depredations of insects,) and of the very best quality?

I know that much of the soil of Wisconsin and Northern Illinois is too moist for wheat, but such is also the case, though perhaps to a less extent, in Western New York and here. This damp soil with us winter kills, and we learn not to sow wheat on it, and I presume they are as wise in this respect as we are.

I know, too, that our climate is milder in winter than theirs, there being often a difference of ten degrees in our favor in extreme cold weather; but cold weather does not winter-kill wheat. It can not be for the want of a rich soil, for they beat us in spring wheat and corn. Neither can I conceive it to be for

the lack of any element in their soil, for spring wheat and winter wheat must be nearly or quite the same, chemically—the difference being merely the effect of habit or training.

Our winds being mainly from the west, would naturally bring us more aqueous vapor, and from that cause we may suffer less from drouth; but drouth effects equally spring wheat and corn, in which they excel.

I know that there are some sections peculiarly adapted to particular plants for reasons that are not in all cases understood, but an inquiry into these facts may cause us more highly to appreciate our advantages, and teach them to obviate, in a measure, the difficulties under which they labor.

Muskegon, Mich.

S. E. P.

A DISASTROUS FIRE.

MR. GEORGE MILLER, of Markham, well-known to the readers of the *Genesee Farmer* as one of the prominent stock breeders and farmers in Canada, has recently met with a severe loss. On Saturday morning, the 19th ult., about day-break, while the family were at breakfast, smoke was observed to be issuing from the horse-stable, and in a few minutes the entire building was in flames. The fire spread rapidly to the adjacent buildings, and the entire pile was quickly consumed. Along with them, melancholy to relate, a quantity of most valuable stock was destroyed. Ten horses, including "Bird Catcher," the Irish blood Stallion, imported two years ago by Mr. S. Beattie, 18 head of thorough-bred cattle, 40 pure bred sheep, 12 or 15 pigs; and a number of choice fowls perished in the flames. Besides the animals lost, 700 bushels of oats, 500 bushels of barley, 300 bushels of wheat, 15 or 20 tons of hay, two reaping machines, one thresher, wagons, sleighs, and a large number of valuable implements were consumed. "The stock," says the *Canada Farmer*, "is indeed a serious loss not only to Mr. Miller, but to the country at large. It consisted almost wholly of breeding animals, and comprised some of Mr. M.'s best specimens, such indeed as cannot be easily replaced. The cash value of the property destroyed is estimated at \$12,000, on which there was only the trifling insurance of \$1,850. We understand the fire is supposed to have been caused by some of the men smoking while feeding the stock before breakfast. This calamity teaches at least three important lessons. 1. The wisdom of effecting full insurance on valuable farm property. 2. The importance of so constructing farm buildings, as to admit of ready egress of horses and cattle in case of fire. 3. The impropriety of smoking in barns and stables. We might perhaps add the value of presence of mind, of which we are told there was a great lack at the fire in question. Mr. Miller himself has been on crutches for some time past in consequence of an accident, and was therefore unable to direct and aid in the extrication of his stock, or doubtless much more of it would have been saved."



GARDEN WORK FOR MAY.

UNLESS the season is unusually backward, or the gardener very sluggish, he now has quite a variety of vegetables up in his garden, and he will observe, too, that quite a profusion of unbidden verdure is already covering his beds, which, if not *immediately* and *vigorously* assaulted, will soon gain the ascendancy over, and choke down the tender vegetables which he has sown.

At no time can weeds be so easily overcome as when they first make their appearance; for if neglected, they soon strike down their roots—like evil habits in men—interweave them with the roots of useful plants, and can only be entirely eradicated with great labor, and at the imminent risk of destroying more or less of the crop.

Then don't wait for the weeds to get rooted, but run the scuffle hoe between the rows as soon as it is possible to follow them. Indeed, if pains were taken to place a stick at each end of every row of such crops as are a long time in coming up—onions and carrots, for instance—the gardener could at any time, by stretching his line between the sticks, follow the row with the hoe before the plants are visible.

The following may be planted in May: Beans, beets, late cabbage, late cauliflower, celery, carrots, corn, cucumbers, lettuce, melons, nasturtiums, okra, peas, peppers, radish, spinach, squash, tomatoes.

Beans.—Dwarf or Snap, Early Valentine, Yellow Six-Weeks, and Early Mohawk are the best early sorts; Early Rachel, Rob Roy, Refugee or 1000-to-1 for succession; and Large White Kidney and Marrowfat for fall and winter use. Sow, early in the month, the early sorts in drills two inches deep and eighteen inches asunder. The later sorts can be sown in June.

Pole or Running Beans.—Desirable sorts are: London Horticultural, Dutch Caseknife, White Cranberry, Scarlet Running, and Large White Lima. The first four can be planted early in the month, and the last the latter part, after all danger of frost is past. Procure poles of durable wood, 8 feet long; set them firmly in the ground, 3 feet each way; plant 8 to 10 beans around each, and cover 2 inches

deep. It is well to put a little warming manure, or bone dust, under the Limas to hurry them forward, as they are the most delicious of all beans.

Beets.—Sow the latter part of the month the Long Blood for winter use. Hoe and weed those sown last month.

Late Cabbage.—Sow Early Dutch and Early Oxheart to succeed the earlier kinds, Large Flat Dutch, Late Drumhead Savoy, for late fall and winter use, and Red Dutch for pickling.

Late Cauliflower.—Thornburn's Nonpareil is best for late crop, and Lenormand's is the largest in cultivation.

Celery.—May now be picked out of the hot-bed into a rich, warm bed, three inches apart each way, and for winter's supply it may yet be sown.

Carrots.—Can be sown any time this month for main crop in rows eleven inches apart. Long Orange, Altringham and Long White are the best kinds.

Sweet Corn.—Early Darling's Sugar, Burr's New Sugar and Stowell's Evergreen are the best sorts.

Plant early in May, and every two weeks until the middle of June. Plant the last-named about the middle of the month, and it will last until severe frost.

Cucumbers.—Early White Spined, Long Green, and Small Gherkin for pickles. Those planted in sods in the hot-bed may be transplanted the latter part of the month, using care not to break the sods in handling them. Dig a hole a foot square and eight inches deep, put in a shovelful of well-rotted horse-manure, mix it well with loam, and then draw on two inches of soil for seeds, or, if transplanting, place the sods directly on the compost. Four feet is the proper distance apart. Be on the lookout early in the morning for the striped bug and the squash bug, killing all you find, or they will kill your vines.

Lettuce.—Transplant from the hot-bed, 3 by 13 inches, and as you use for the table pull every alternate bunch. Sow for succession. Frequent hoeings will make it tender and crisp.

Musk-Melons.—Desirable sorts: Fine White Japan and Jenny Lind for earliest; Fine Nutmeg, Green Citron and Skillmen's Fine Notted for general crop. Plant in hills, as directed for cucumbers, four feet each way.

Water-Melons.—Kinds: Early Mountain Sprout and Goodwin's Imperial are the earliest. Black Spanish, Ice-cream and Orange are good varieties. Should be planted six feet each way, and cultivated the same as musk-melons.

Nasturtium.—There are tall and dwarf varieties. The former should be planted near the fence, or some unsightly object which it is desirable to cover, and allowed to run over it. Sow the latter part of the month, covering one inch, and thinning to eight inches.

Okra.—Improved Dwarf Green, Long Green. Sow the latter part of the month in drills three feet apart, and thin to ten inches. The pods are used for soup, while green and tender, or sliced and dried for winter. This makes a very rich, gelatinous soup.

Peas.—Sow for succession, and frequently hoe those early sown.

Pepper.—Sow in open ground the early part of the month, eighteen inches each way. Transplant from hot-bed the latter part of the month.

Raddish.—Hoe and weed those sown last month, and the latter part of the month commence pulling for the table. Pull quite small, before they become tough and stringy. Sow every two weeks for succession.

Spinach.—Hoe and weed frequently the early crop. It can still be sown for summer use, and for greens is far preferable to all the *weeds* that can be gathered about the fields and swamps.

Squash.—The best varieties are: Early Golden Bush, Early Green Striped Bush, Early White Scallop Bush and Summer Crookneck, for summer use, and Hubbard, Boston Marrow, Winter Crookneck and Honolulu for fall and winter. Plant the Bush varieties early in the month, four feet each way; the others the latter part of the month, six by eight feet, and cultivate the same as cucumbers. Be careful not to plant two varieties in proximity, or they will mix and degenerate.

Tomatoes.—Transplant late in the month from the hot-bed four feet each way. Reject weak, sickly plants, and remember the directions given in the April number for transplanting cabbage. They may be sown about the middle of the month in hills where they are to remain, a half dozen seeds in a hill, finally removing all but one. The season for enjoying tomatoes sown in the open air will be short, but they can be canned, or pickled, and their season thus greatly extended. If the ground is very rich, tomatoes will not ripen as early as on poorer soil, but the yield will be greater.

SMALL FRUITS.

To insure a good growth the first season, small fruits should all have been planted early in April, but those who failed to do so can still plant blackberries and strawberries. The other small fruits will probably be too far advanced in leaf to transplant with success.

In planting raspberries and blackberries the planter, especially if a young one, will feel a great temptation to leave on most of the canes that he may see some of the fruit. This is very bad policy, as it prevents the formation of wood for next year's crop, and permanently affects the vigor of the plant while at the best the current year's fruit will amount to but little.

Let the aim of the gardener be to get as good a growth of strong canes as possible, pulling up all but three or four of the stronger ones. Small fruits repay thorough cultivation quite as well as vegetables. I have caused a luxuriant growth of strawberry vines, in one of the driest of seasons, just by passing with the cultivator frequently between the rows.

Those who have been accustomed to grow currants along the fence, in the sod, would be astonished by the change which culture and pruning would produce in the size and productiveness of that important fruit.

THE FLOWER GARDEN.

Although outside of my department, perhaps some of the lady readers of the *Genesee Farmer* would thank me for reminding them that this is the proper time for sowing most of the annual flower seeds, and for a few hints in regard to their culture.

A light, mellow soil, not inclined to bake, and tolerably fertile, is best adapted to annuals. At any rate, the soil must be made fine and mellow before sowing the seeds. As a general thing, flower seeds are small, and require but a slight covering.

As a rule, all seeds should be covered in proportion to their size—the coarser they are, the deeper should they be covered. It would be well to sift the soil through a fine sieve that is to cover small flower seeds.

The following list contains a large share of the best annuals and perennials which bloom the first year: Sweet Alyssum, Improved French and German Asters, Globe Amaranthus, Cockscomb, Chinese Pink, Cyprus Vine, Candytuft, Centranthus, Beautiful Clarkia, Swan River Daisy, Eschscholtzia, Forget-Me-Not, Gillia, Immortelle, Swan River Immortelle, Mixed Larkspurs, Dwarf Blue Larkspurs, Fine Mixed Lupins, Large Flowering Malope, Double French Marigold, Dwarf Morning Glory, Mixed Portulacca, Phlox Drummondii, French and German Poppies, Mixed Petunias, Sweet Pea, Tassel Flower, Whitavia, Zinnia (elegans).

Most flower seeds are some time coming up, and could be forwarded by soaking in tepid water.

Farmers should not consider the time and space devoted to flowers thrown away, as they minister to a higher want in man than the vegetable, and therefore are in the highest sense *more useful*. R.

NEVER set young trees in a grass field, or among wheat or other sowed grain. Clover is still worse, as the roots go deep and rob the tree roots. The whole surface should be clean and mellow; or, if any crops are suffered, they should be potatoes, carrots, turnips, or other low, hoed crops.

SHRIVELED TREES may be made plump before planting, by covering the tops and all with earth for several days.

FRUIT CULTURE IN THE WEST.—NO. 1.

WRITTEN FOR THE GENESEE FARMER BY D. C. SCOFIELD.

Too much can not be said, if rightly said, to enforce upon the mind of the man who owns land the importance not only of planting fruit trees, and all the smaller fruits, but also of the necessity of vigorous, persevering and intelligent care of them. Although the agricultural journals for many years past have teemed with able and instructive articles on the subject, yet there seems to be less interest felt on this than on any other subject connected with farm culture.

The apple, and all other fruit trees, fruit plants and vines, require as punctual attendance and clear culture as the best cultivated garden. The apple orchard should be protected from the prairie gales either by a natural or artificial grove, and should be set on dry soil not exceeding sixteen or eighteen feet apart, and carefully pruned early in March, leaving no limbs on the young trees that should ever after be removed. Again, in July or August, every sprout or sucker from either roots or limbs should be carefully removed. A vigilant watch should be constantly kept that no insects or worms prey upon the foliage or bore into the tree. Deep plowing, which would destroy the surface or feeding-roots, is by no means admissible among apple trees—neither are exhausting crops of grain. In short, no grain except buckwheat should ever grow in an orchard, and for this the ground should be prepared by a plow or cultivator that will not cut more than two or three inches deep. No grass crop should ever grow among apple trees. All the resources of the soil are required for the growth and productiveness of the trees. There is no soil so rich by nature that will not become exhausted by fruit-bearing trees.

As soon as the trees begin to produce crops of fruit, fertilizing agents should be immediately applied sufficient to return to the soil an equivalent for the drain on it caused by the ripening crop. Any farm manures are adapted to this purpose. This should be performed annually, thereby securing an annual crop. A full crop of apples on a tree will exhaust the material resources of the soil however rich it may be, so that another equally full and fine can not be produced the next year, unless the needed supply of manure is applied to the soil in time for the formation of fruit-buds necessary to ensure a full yield the succeeding year.

This is no new doctrine to the intelligent fruit-grower, yet few indeed pursue it. So exhausting to the soil is a full crop of apples, that sometimes all its resources are completely exhausted; and this so late in the season that nature can not recuperate herself, and the next spring finds the tree without sufficient nutriment even to sustain life, and such

trees leaf out feebly, with pale and stunted foliage, and in the progress of the season dwindle and die, literally *starved to death*; and you will hear it said, "*that tree bore itself to death.*" Had a proper supply of manure been applied in season the previous year, the tree would not only have lived but would have produced blossoms and a crop of fruit equal to the former year, and so on year after year, unless some unusual atmospheric influence had occurred.

As in the animal kingdom, so also in the vegetable kingdom. Who would think of milking a full pail from his cow each of the seven days of the week, when she was fed only *once*, and that on Monday morning! He is chargeable with equal folly who would expect a full crop of apples six successive years with feeding his tree but once.

A single illustration of this principle will serve my present purpose. I could give many. I knew a large neglected tree of the Greening family, standing in the garden of S. Cooly, in North-western New York, of which he came in possession in 1843. He immediately pruned it thoroughly, scraped off the rough bark, and would have plowed the soil under it, which had been for many years neglected; but when his plow reached within the outer circle of limbs, he found the entire soil filled with a web of roots, and withdrew the plow, and with a hoe introduced a large supply of strong fertilizing agents, which he continued to do for thirteen consecutive years. The result was, he gathered each year a crop of apples the least of which was fifteen bushels. Twice in the time he gathered fifty bushels in a year. About 1856 he sold his place, and the following two years it received no manuring. The second year it yielded but *two* bushels of very poor apples.

This needs no comment. A similar result will be produced anywhere. So also with other fruits, whether large or small. The amount, the quality, and the beauty of the fruit are always influenced by the cultivation of the soil.

CONSTANT, clean and mellow cultivation is absolutely necessary at all times for the successful growth of the peach tree; it is as necessary for a young plum tree, but not quite so much so for an old one; it is nearly as essential for a young apple tree, but much less so for an old orchard; and still less necessary for a middle-aged cherry tree.

WARM VALLEYS, with a rich soil, are more liable to cause destruction of trees or their crops by cold, than moderate hills of more exposure, and with less fertile soil; the cold air settling at the bottom of valleys during the sharpest frosts, and the rich soil making the trees grow too late in autumn, without ripening and hardening their wood.

JUNE THE TIME TO PRUNE FRUIT TREES.—NO. 2.

EDS. GENESEE FARMER: According to promise I will now endeavor to give my reasons for pruning fruit trees in June. Allow me, first, to say of myself, that I claim only to be a *practical* farmer; and as such endeavor to make myself acquainted *with theories*, only that I may judge of, or test their correctness and practicability by my own observation and experience.

In the April number, I gave as the heading to my article, the conclusion at which I have arrived, from such experience, that is, *June is the time to prune fruit trees*. I have never seen this position advocated by any of our writers on horticulture, and have been more distrustful of my own correctness, from the want of authority than from any other cause. I know, however, the truth whereof I affirm, and do not present it as a theory merely.

We may inquire in the first place, why *should* we prune fruit trees in February and March? Not because the people of Western New York *do* prune at that season. Nor, because, if pruned *sooner*, they would be liable to injury. Nor because the terminal bud cut back to, would be liable to injury, if done in January; does it follow that it would be, if done in May or June. If by being pruned before February and March, they would be liable to injury from frosts, they also would be if pruned then. The mere *difference* in liability to injury, is no *reason why* we should prune then, rather than at a time when there is no liability from this cause; but is a reason why we should prune later.

I understand pruning and trimming to be synonymous, and either may mean the taking off of a lateral limb, or the shortening-in of a shoot at the termination of a limb. I am of the opinion that very little injury can accrue to the tree, by taking off, or shortening a shoot at any season. If judiciously performed I do not think any *permanent* harm will be likely to follow; yet in proportion to its age and size, the same objections lie against the shortening of a shoot, as the cutting off of a limb. By cutting off a lateral (pruning) when the tree is not in a condition to heal the wound, permanent and fatal injury may result.

The injury comes from causes which act on the wound made by the knife, whether those causes be frosts or anything else. It is self-evident that the wound ought to commence to heal immediately after it is made; both to retain a healthy state, and to be able to resist external injuries.

This leads us to inquire whether the wound does commence to heal in February, March and April. Certainly not in February and March. Then from this consideration we ought not to prune at that time.

I will not further treat the subject negatively, but come now to note what I regard as positive evidence I have a young orchard in which I delight to spend my leisure hours, in watching its progress and the habit of the trees, and cultivating it at all seasons of the year. I spend some time each spring in grafting for others, and have opportunity to make observation on the different treatment which trees receive; and have myself practiced and recommended pruning in June and later; and in my judgment the following facts are established:

1st. That when a limb is cut off before the growing season begins, it will dry and die back where the cut is made, both the wood and the bark; not only from the action of "severe frosts," but from light frosts, and from continued cold and wet, and from the severe and drying winds of spring. What it thus loses while waiting for the growing season must be made up by the growth of *new wood* when that season arrives. Nature then undertakes to heal the wound by growing it over with this new wood; but much time will be lost before it will grow up from the point where life still remains between the bark and wood, to the place where it would be were you to make the cut in May or June, instead of February or March.

2d. Where a limb is cut off before the growing season, and before or at the time of the spring flow of sap, the sap must come to the surface where cut, and there be evaporated or fermented, leaving the wood sour and lifeless, and liable soon to rot. It is an easy matter to tell by the appearance of the wood whether it was trimmed in winter and early spring, or in May and thereafter.

In the first the wood turns black and is easily picked to pieces with the point of your knife. In the second it will season hard and firm, and retain its natural color.

I find that the first class do not readily heal over, and if large will rot before they *can* heal.

But limbs when taken off in May, June, July and August, will begin immediately to send out a ring of new wood, just at the point where it is needed, and will thereby protect itself in the soonest possible period from external harm.

We should look to the nature and habits of our trees, in order to know when and how to do our work. It is a well-established principle that the most *healthy* formation of wood takes place in July and August; and the most *vigorous* growth is in June. June then, being the most *vigorous* growing period, and being succeeded by the most healthy wood forming period, must be *the time* to prune trees. At this time any injury to the tree is most speedily arrested and repaired.

In June the whole bark may be taken from an *ap-*

the tree, and yet the tree not appear to be injured thereby.

I have taken off limbs as large as a man's finger in June, and seen them entirely healed over the first season; while those of the same size taken off three or four months earlier, would not heal until the second season.

In cutting off limbs to graft them, below where a lateral had been cut (out of season,) I have found the wood black and lifeless, and traced the cause directly up to the place where the limb was taken off, although the scar had healed over.

I have found them rotten and hollow, apparently from no other cause than that they were pruned according to the custom of our fathers, at a period when they could find most leisure to do it, and when they had no idea of the needless mischief they were doing.

The questions—Why and how we should prune, I must defer for the present. E. D. WRIGHT.
Pierpont, Ohio.

THE APPLE TREE BORER.

EDS. GENESEE FARMER: A correspondent, A. K., of the *New York Observer*, recommends boring a hole in the tree and putting in sulphur, and stopping it with wax; and says: "it is a certain remedy," and "will not injure the tree." Now, I have some confidence in the remedy, but I have always a suspicion of "certain remedies" and medicines that "do no harm." I have tried spirits of turpentine, though not without some fears that the remedy might be worse than the disease, as I know it will kill young, tender plants. I had a locust tree of some eight inches in diameter that was being eaten up with borers, and thinking that the disease would be fatal, and the remedy could be no worse, I took bits of cotton and dipped them in turpentine, and crowded them into the holes with a stick, and as fast as new holes appeared, I served them the same way. The borers disappeared, and the tree is now healthy and sound; but at about the same time the locust borers which had before been quite common disappeared from the neighborhood. Did my remedy cure them all?

Some years after I found a borer of another species in my apple trees. I stopped his holes the same way, and found almost invariably the next day a new hole higher up, after stopping which I seldom saw any more signs of them in that tree. I supposed that the worm was above his hole in the first application, and that he made a hole higher up either for exit or ventilation, and if for the latter, that the turpentine reached and killed him, but I never dissected a tree to ascertain.

Now whether sulphur in this case will do no harm,

I consider not so certain. True, it is a constituent of most plants in a very small proportion, and is used as a fertilizer, in gypsum, and it is possible that when fed pure and directly to the tree that no injury will ensue. Turpentine is composed of carbon and hydrogen, two elements that enter largely into the composition of all plants, and for that reason I should have less fear from it; still I certainly would not administer either to a healthy tree.

The peach borer not being in the wood is not so easily reached with a liquid. I have found that driving a nail through or into the crown to be a pretty sure remedy for three or four years, but I should rather have preventives if they can be found than any of these remedies. S. B. P.

Muskegon, Mich., April, 1864.

RAISING MINUTE SEEDS.

M. J. BERKLEY, of the *London Gardeners' Chronicle*, has the following suggestions on raising minute seeds:

"A method has been suggested in the *Wochenschrift für Gärtnerei und Pflanzenkunde* for 1853, which we do not recollect having noticed before. The pots are filled with mold firmly pressed in, and made perfectly level at the top, leaving the edge projecting above the soil for about half an inch. The seed is then scattered over the mold, and gently pressed with some flat round surface, as the bottom of a flower pot. A piece of filtering paper is then cut of the size of the pressed surface and pierced with holes, so as to make it pervious to air, and the paper is kept moist from time to time with a fine rose. The surface of the soil in consequence is not disturbed, and the seed buried, while the paper can easily be lifted from time to time to see what progress they have made, and may be turned on one side altogether as soon as the seedlings are well rooted. Plants with larger seeds, as for example stocks, it is said, may be sometimes raised advantageously in this manner."

BE careful what kinds of stocks you put your best fruits on. Don't put Rome Beauty, Rawles' Janet and Golden Pippin on crab stocks or seedlings of an inferior, sickly, bitter or rotten kind; your fine Italians, President, Alberge, Rareripe, &c., on little, gnarled, tasteless, deteriorated stocks. If color or size is objectionable—cross it. If the flavor does not suit—cross it. But be careful to unite two good things, and you will not be apt to be disappointed in your hopes.

MANURE should never be placed in contact with the roots of a tree in setting it out, but old, finely pulverized earthy compost answers well.

Ladies' Department.

ADVICE TO FARMERS' WIVES AND DAUGHTERS.

TAKE out-door exercise; work in the garden; hunt hen's eggs; walk to the woods for wild flowers; visit your neighbors—anything for fresh air.

House-work is undoubtedly good for the health; but the hoe and the rake are better still. Do not fear cold winds or hot sunshine for your complexion. Wear gloves and wide-brimmed hats, and having done your best for the protection of your good looks, work away cheerfully. The flowers which you will gather in July and through the rest of the season, will amply repay you for a good many freckles, some sunburn, and not a little tan.

If there is no one to make a garden for you, make one for yourself. If a woman is really in earnest, the men around her must be very stubborn if she can not induce them to spend a few hours in helping her in anything she undertakes.

It is too late now for very early peas, but not too late for marrowfats, tomatoes, radishes, celery, cauliflowers, and many other summer vegetables. Sow them and hoe them yourself, and you will be astonished to find how good they will be when they come to the table.

Almost all the annuals will grow finely if the seeds are sown now; and if the soil is fine and soft, and the seeds are not put in too deep, you can not fail to succeed. Any earth can be made fine enough by working it over carefully, and then as soon as the plants appear hoe them quite often to kill the weeds and to keep the earth loose around them. All this requires labor, but then the labor soon becomes a pleasure; and perhaps, too, you may become as healthy as your grandmothers. Learn to prune and tie up grape vines. It is light and pleasant work, and is too often neglected.

When the in-door work is not too hard, the women on a farm at this season have more leisure than the men; and as they also have a greater love of order, to them naturally falls all the little matters which are generally considered non-essentials. Much may be done without causing too much fatigue, not only for ornamentation, but also for real comfort.

Good fruit and fresh vegetables are not to be despised, even by the most practical, and a few flowers will be forgiven for their sakes.

If you will not try working in the garden, go out into the woods, gather wild flowers, learn their names, their habits, and their haunts. Make a collection of mosses and lichens, and learn something of the wealth of beauty which Nature has showered around you. Learn to appreciate the pleasures which are near, and so cease to long for those beyond your reach. What is more glorious and inspiring than the woods in the early spring, with the soft carpet of fallen leaves, the sweet fragrance of the pine and the bursting buds, the sunlight dancing into the shadiest nooks and showing the shy wild flowers which are nestling there! You may object that wet feet and bedraggled skirts are sad alloys to such pleasure. But India-rubber boots are

easily procured, and a balmoral every one has; and with these mud and water are but trifles.

Unasked advice is proverbially thrown away; but then every one gives it, and now and then it is good seed sown on good ground. H. T.

HOW TO OUTWIT THE MOTH.—The following has more real virtue in it than any of the so-called scare-aways of the moth which has yet met our eye. Only be careful that there are no moths in the furs when put away, and it will be impossible for them to get in if the necessary care is taken. But to the advice: Most of our insects are very hardy, caring little for wind and weather, and will never "die of aromatic pain." We once packed some small skins in the center of a cask of tobacco leaves and stems, but the miller went there, deposited her eggs and the furs were ruined. This shows that they are not at all delicate and care nothing for tobacco. Expensive cedar closets are frequently constructed with the idea that the rather pleasant odor of the cedar is sufficiently disagreeable to the moth to keep her away from articles of clothing deposited there. This is a mistake. The strongest instinct prompts the miller to seek the means of perpetuating its kind, and no trifling impediment will prevent it. But the preservation of furs, or articles of clothing, is perfectly simple, cheap and easy. Shake them well and tie them up in a cotton or linen bag, so that the miller can not possibly enter, and the articles will not be injured though the bag is hung in a wood-house or garret. This is cheaper than to build cedar closets; and better than to fill the bed clothes and garments with the sickening odor of camphor, tobacco, or any other drug.—*Germanstown Telegraph.*

GLUE FOR READY USE.—We find the following receipt in the *Farmer and Mechanic*: To any quantity of glue use common whisky instead of water; put both together in a bottle, cork it tight and set it away for three or four days, when it will be fit for use without the application of heat. Glue thus prepared will keep for years, and it is at all times fit for use, except in very cold weather, when it should be set in warm water before using. To obviate the difficulty of the stopper getting tight by the glue drying in the mouth of the vessel, use a tin vessel with the cover fitted tight to the outside, to prevent the escape of the spirit by evaporation. A strong solution of isinglass, made in the same manner, is an excellent cement for leather.

TO MAKE PEA SOUP.—To four quarts of water, put in one quart of split peas, three slices of lean bacon, (or a ham bone if at hand,) and some roast beef bones, one head of celery, one turnip, and two carrots, cut into small pieces, a little salt and pepper; let all these simmer gently until the quantity is reduced to two quarts. Run it through a cullender, with a wooden spoon, mix a little flour in water, and boil it well with the soup, and slice in another head of celery, adding cayenne pepper and a little more salt. Fry slices of bread in some butter until they assume a light brown color, cut them into small squares, and hand them with the soup, as well as a small dishful of powdered dried sage.

Miscellaneous.

A LOCK OF FLAXEN HAIR.

I have a lock of flaxen hair,
Wrapt in a tiny fold;
'Tis hoarded with a miser's care,
'Tis dearer far than gold.
To other eyes of little worth,
Yet precious unto mine;
For once, dear child, in life and health,
It was a lock of thine.

The numbered hours pass slowly by;
Days, weeks, and months depart,
Yet still the vacant place remains
Unchanged within the heart;
The loneliness is still the same,
The same great want is there,
While memory loves to brood upon
The simple lock of hair.

The cold winds seem to sigh more loud,
When shades of evening fall,
The clock with more impressive sound
Ticks louder on the wall;
For now no artless words I hear,
No smiling face I see;
No tones of childish mirth break forth,
So dear to home and me.

'Tis past—'tis gone—like some strange dream
That lingers with the mind;
Some pleasant scene of happiness
The heart hath left behind;
An atom from the fading dust,
A relic of the past,
That tells of transient hopes and joys,
Of things that could not last.

'Tis all that now remains of thee,
Light of our home and hearth;
While sadly pass the silent hours,
And dark the days come forth.
Yet still I keep it for thy sake,
And guard it with fond care;
And oft I view, with throbbing heart,
Thy simple lock of hair.

PROFESSOR JOHNSON was one day lecturing before the students on mineralogy. He had before him a number of specimens of various sorts to illustrate the subject, when a roughish student, for sport, slyly slipped a piece of brick among the stones. The professor was taking up the stones one after the other, and naming them. "This," he said, "is a piece of granite; this is felspar," &c. Presently he came to the brickbat. Without betraying any surprise, or even changing the tone of his voice, "This," he said, holding it up, "is a piece of impudence."

A YORKSHIERMAN, on a railway platform, had Baron Macaulay pointed out to his notice; and upon it being explained to him that the Baron was an author, who was formerly known as Mr. Macaulay, he thus put him to his astonishment: "That's Measter Micowly, the owther, is it now? Well, I awlas thought they looked pale and seedy and out of elbows: but that chap's gout a hat, an' he's so weel dressed to—dang it, I shud niver taken him for an owther."

MEINHEER VON DUNCK attended court at New York to get excused from the jury-box. "I can't unstand goot Englese," quoth Meinheer. "What did he say?" asked the judge. "I can't unstand goot Englese," repeated the Dutchman. "Take your seat," cried the judge, "take your seat. That's no excuse; you need not be alarmed, as you are not likely to hear any."

THE EGG A MINIATURE UNIVERSE.

The following remarkable passage occurs in Prof. Agassiz's "Methods of Study in Natural History:"

"One can hardly conceive the beauty of the egg as seen through the microscope at this period of its growth, when the whole yolk is divided, with the dark granules on one side; while the other side, where the transparent halo of the vesicle is seen, is brilliant with light. With the growth of the egg these granules enlarge, become more distinct, and under the microscope some of them appear to be hollow. They are not round in form, but rather irregular, and under the effect of light they are exceedingly brilliant. Presently, instead of being scattered equally over the space they occupy, they form clusters—constellations, as it were—and between these clusters are clear spaces, produced by the separation of the albumen from the oil. At this period of its growth there is a wonderful resemblance between the appearance of the egg, as seen under the microscope, and the firmament with the celestial bodies. The little clusters or constellations are equally divided. Here and there they are two by two like double stars, or sometimes in threes, or fives, or in sevens, recalling the Pleiades; and the clear albuminous tracts between are like the empty spaces separating the stars. This is simply true that such is the actual appearance of the yolk at this time; and the idea can not but suggest itself to the mind, that the thoughts which have been embodied in the universe, are recalled here within the little egg, presenting a miniature diagram of the firmament. This is one of the first changes of the yolk, ending by forming regular clusters, with a sort of network of albumen between, and then this phase of the growth is complete"

PUBLIC BUSINESS: AN ADROIT TRICK.—A story is told of a King of France who told his Minister that complaints of justice deferred had become so clamorous that he was determined for the future to look into the affairs of the State himself. Next morning his Majesty, looking from his bedroom window, saw six huge wagons, from which bundles of papers, duly red-taped and ticketed, were being discharged. On asking the Minister who accompanied the papers what this meant, the reply was that those wagons contained a small installment—the rest were to follow—of the papers which his Majesty, in following out his praiseworthy determination to attend to business himself, would require to examine. The King countermanded the wagons, and the Minister, as before, was left to manage the State as seemed to him best.

CHRISTMAS in Australia is kept in the open air. The people amuse themselves with boating, sailing, attending out-door concerts and appearing at flower shows, not forgetting cool drinks.

AN army chaplain, preaching to his soldiers, exclaimed: "If God be with us, who can be against us?" "Jeff. Davis and the devil!" promptly exclaimed one of the boys.



Half Volume of the Genesee Farmer.

WITH the July number will commence a half volume of the *GENESSEE FARMER*. It will be a good time for our friends to increase the circulation of the paper. We have concluded not to advance our rates at present. We are trying to make a good, practical agricultural and horticultural journal. There never was a time when an improved system of farming and an increase in our agricultural products were so important as at present.

Are we wrong in assuming that the increased circulation of such papers as the *GENESSEE FARMER* would tend to favor such a result? To all who are willing to increase the circulation of the *FARMER* we have a special request to make:

GET US AT LEAST ONE NEW SUBSCRIBER.

Ask the first farmer you meet to take the paper for the coming half year. It will cost you little trouble; he will not regret taking the paper, and you will in this way do us a favor which will be fully appreciated.

Our terms for the coming half volume will be:

Eight subscribers.....	\$2 00
Five subscribers.....	1 50
Single subscribers.....	40

These rates are so low that we can not afford to offer any prize to those getting up the club. We deem this unnecessary, as our appeal is to those who are willing to make a little effort to increase our circulation from a love of the cause.

For large clubs we offer the following prizes.

For sixteen subscribers at twenty-five cents each for the half volume, we will send, prepaid by return mail, a copy of *Miner's Domestic Poultry Book*.

For twenty-four subscribers we will send, prepaid by return mail, a copy of Emerson & Flint's new book, *The Manual of Agriculture*.

The half volume commences with the July number, but all who subscribe at this time will receive the June number free—or seven months for the half year. We need hardly say that at the present high price of materials we make *nothing* on the paper at these rates; but we are very anxious to increase the circulation and influence of the *GENESSEE FARMER*.

Let all our friends see what they can do for us at this time.

Agricultural Fairs.

We should feel obliged to the Secretaries of the various Agricultural Societies in the United States and Canadas if they would inform us at what time their next Fairs are to be held. We wish to publish as complete a list as possible.

Notes on the Weather from March 15th to April 16th, 1864.

THE last half of March gave a mean temperature of 30°, or 4° colder than the first half. This has occurred five times before in twenty-eight years. In 1844 the temperature of the first half was 6° above that of the last half; and in 1854 the first half was very high (40.2°), and the last 27.4°, giving the difference of near 13°. The average temperature of the two for twenty-seven years is 30° and 34.5°.

The average heat of the month is 31.9°, not one-third of a degree below the general average of the month. The greatest heat of the last half was 54°, on the 25th, and the least 7°, on the 21st.

Water fallen in the month, 3.44 inches, which is considerably above the mean of March, 2.03 inches. The amount of water this year to April 1st is 7.53 inches, and the average for that time is 7.33. The rain and wet snow of the last two days of March gave 1.10 inch of water.

Eben Meriam, of Brooklyn Heights, distinguished for his meteorological observations, died on the 19th.

APRIL.—The first half has not been very pleasant. The general average of temperature for this half is 40.9°, which is 1.3° below the mean of the present, 42.2°.

The soft maples have put forth their flowers, and the crocuses have been as early as usual. The *Zionwort*, *Hepatica*, is fully in blossom, and the heads of the *Skunk cabbage* are covered with maturing fruit. Grass begins to start. The air is cool, but the buds of the peach are swelling, and the prospect for the fruits so far fair.

The water fallen in this fortnight is about the average. Repeated storms of rain on the Potomac have made very unpleasant times for our soldiers.

Tobacco for the Cut-Worm.

W. BUTCHER, of Galesburg, Ill., writes the *Prairie Farmer* that some years ago the cut-worm destroyed nearly all his young cabbage plants. He planted and replanted, and applied ashes, lime, salt, cow manure, hen droppings and everything else he could think of, but all to no purpose. He then took half a pound of tobacco and put it in a pail of hot water, and when cold put a little on each plant as he picked them out. The remedy was perfect. He has adopted the same plan every year since, and has not lost a single plant from the cut-worm.

Pittsburg Sanitary Fair.

A SANITARY FAIR is to be held in Pittsburg, Pa., for which contributions of live stock and farm products are solicited. The Secretary of the Committee of the Agricultural Department, J. T. F. Wright, sends us a circular, which says that the Allegheny County Agricultural Society has authorized the committee to offer the handsome premium of \$500 to the Agricultural Society, or the contributors of the county, which shall donate to the Fair the largest amount, in value, of live stock. Allegheny county is not to be a competitor for the premium.

"Ten Acres Enough,"*

THE name of the author of this interesting little work is not given. For forty years he lived in Philadelphia. Commencing life without a dollar, by dint of close application to business, and by avoiding taverns and oyster-houses, theatres, and fashionable tailors, he managed to save a few hundred dollars, married and went into business. In this he was moderately successful. The crisis of 1837, however, nearly ruined him, but he kept struggling along through the next five succeeding years of hard times. He was obliged to "give notes," and though his property had cost him much more than he owed, yet at a forced sale no one would have given more than half its value. "Hence," he says, "I struggled on through that exhausting crisis, haunted by perpetual fears of being dishonored at bank—lying down at night, not to peaceful slumbers, but to dream of fresh expedients to preserve my credit for to-morrow."

At length he determined to leave the city, and turn his attention to farming. He sold his business, and after paying all his debts had \$2,000 left. He purchased a small place in New Jersey, of eleven acres, for \$1,000, and bid adieu to the city. One acre was in clover, and another was occupied with the house and garden. This left him nine acres for general fruit and vegetable culture. He hired it plowed and subsoiled, going down twenty inches. He thinks if he could have plowed two feet deep it would have been all the better! He laid out \$200 in the purchase of well-rotted barn-yard manure, and put it on the nine acres. He then set out six acres of peach trees, eighteen feet apart each way, or 134 to the acre. These would not be in the way of other crops, and in three years would be likely to yield a good return.

He has a relative in Ohio who has a peach orchard of eleven acres, which has yielded him \$5,000, in a single season, while peaches were selling in Cincinnati at 25 cents a bushel. He did not, however, sell his for that price. He received \$2 a bushel more readily than his neighbors got 25 cents for the same variety of peaches. This result was accomplished by thinning the fruit. He determined to adopt the same practice on the old trees which he found on the place. When the young peaches were as large as hickory nuts he began the operation of removing all the smallest and of thinning out unsparingly wherever they were excessively crowded. After going over five trees he brought a bucket full of the expurgated peaches to his wife for exhibition. She seemed panic-stricken at the sight, protesting that they would have no peaches that season. She reminded him of his weakness for pies, and pleaded so eloquently that the other trees should not be stripped that he was induced to desist. Thus five were thinned, and five left untouched. The result was that the peaches on the five denuded trees grew vastly larger and finer than those on the other five. The peaches from those five trees were sent to market and netted \$41, while the fruit from the other five netted only \$17, and those used in

the family, from the same trees, estimated at the same rates were worth \$9, making on those five a difference of \$15 in favor of thinning. One of the most interesting chapters in the work is his account of his war with the weeds. The quick warm soil of New Jersey is particularly infested with them. In June he found every inch of his plowed land in a fair way of being smothered by them. Every variety was represented. It seemed as if the whole township had concentrated its wealth of weeds upon his premises. He tried one week to overcome them with the cultivator, but made little headway. He then bought a "regular horse weeder," which cut them down rapidly and effectually, but in the meantime others were growing up in the rows and corners, and by-places, where nothing but the hoe could reach them. "Several neighboring farmers," he says, "who had doubtless counted on this state of things came along about the time that they supposed my hands would be full, looked over the fence at my courageous onslaught, and called out: 'It's of no use, you can't kill the weeds.'" Such was also the opinion of his Dutch boy Dick whom he hired to help him. A week's labor left a most encouraging mark upon the ground.

"I congratulated myself upon our success," he says, "and inquired of Dick if he did not think that we had got ahead of the enemy now?" This was on a Saturday evening. Dick looked up at the sky, which was then black and showery, with a warm south wind blowing, and a broad laugh came over his features as he replied, "This will do till next time."

That night a powerful rain fell, with a warm sultry wind. Monday morning came with a hot clear sun, and under the combined stimulating power of rain and heat, a new generation of weeds had started into life, quite as numerous as those just overcome. Dick protested that it was impossible to get weeds out of Jersey ground. He admitted they were nuisances, but so were musketoes, and as neither in his opinion did any great harm he thought it not worth while to spend much time or money in endeavoring to get rid of them.

He continued to fight weeds that year, and did not allow a single one to go to seed. The next year he found his land quite clean.

Everything that he had planted grew with surprising luxuriance. It was an illustration of the value of thorough culture—so striking that even Dick was almost convinced of its advantages.

His profits the first year amounted to \$336, derived principally from the sale of the Lawton blackberry plants which he happened to have. The next year showed a better result—the profits amounting to \$1,025. His most profitable crop was his six acres of strawberries planted among his peach trees. He got 5,360 quarts, averaging 16 cents per quart net, or \$857.60 for the whole.

He had never done better than this in the city, and had never been so happy in his life. The third year his receipts were \$2,133.08. Expenses \$806.06—leaving a net profit of \$1,327.02. This is a profit of nearly \$130 per acre. The ground was crowded to its utmost capacity, and cultivated with unflinching industry and care.

*TEN ACRES ENOUGH: a Practical Treatise for the Million. Showing how a very small farm may be made to keep a very large family. New York: James Miller.

He closes with a chapter recommending the thorough cultivation of a few acres at the East, rather than the indifferent cultivation of a large area at the West. This chapter has somewhat the tone of an advertisement of cheap New Jersey land, but, be this as it may, our author has written quite an interesting book.

Inquiries and Answers.

(WM. CRANSTON.)—The Fluke is an English potato. It was introduced into this section some eight or nine years ago, and is now extensively grown. It yields well, and is of excellent quality. The Fluke was raised in 1841 from a seed-ball by a Lancashire man named John Turner. He sowed the seed in his little garden, and the Fluke was the result. He never received any pecuniary benefit from the sale of the potato, but some liberal gentlemen subscribed \$600 to purchase an annuity for him. He did not live long to enjoy it, having died in 1854 at the age of seventy-two.

The Fluke is one of the most popular potatoes in England, and is said to command the highest price in the London market.

DITCHING PLOW.—In answer to an inquiry made by a subscriber of Mercersburg, Pa., as to who has got the best ditching, and what it will cost for stone drawing instead of tile. I am acquainted with many, but think the Bartlett ditching plow the best and cheapest there is before the public. They are made of wrought iron and steel, and braced firm, sufficiently substantial for the most stubborn soil, adjustable to different width of ditch, sold for \$25 00, delivered on the boat or cars. They can be had by addressing A. J. Bartlett, Kendaia, Seneca county, N. Y. The cost of a stone drain is not more than for tile.—R. S. WILCOX, *Geneva, N. Y.*

CAN you tell me where to get a good butter-worker? I have lately gone into the country, and find that butter-making is quite laborious—enough so to need the help of machines. If there is any butter-worker equal to Wheeler & Wilson's sewing machine I should like to get it.—E. R. P.

We should be sincerely glad to oblige our lady correspondent, but we do not know where a good butter-worker can be obtained. We have seen them frequently at the different Fairs, but do not recollect the names of the manufacturers.

How much ruta baga seed is required per acre, and where can it be obtained?—LEVI WILLEY, *Union Mills, Pa.*

If your land is in good order, one pound per acre is sufficient. But it is better to sow too much than too little on account of the ravages of the turnip beetle, or fly. Sow in drills 2½ feet apart, and when the plants are in the rough leaf, then thin out with the hoe, leaving a single plant every 15 inches in the row. It is useless to attempt to raise ruta bagas without thinning them out in this way.

The seed can be obtained from J. M. Thorburn & Co., 15 John street, New York.

(HENRY EMMONS.)—The California potato is not a table variety. It is useful on account of its great size and productiveness to plant for stock and for the manufacture of starch. You can obtain it in this city.

I NOTICED in your January number a new potato called "Royal Ash-Leafed," and would like you to procure for me about one dozen; also the same number of "Early Cottage" and "Early June"—all separate.

In the editorial of the same number I notice you recommend peas for horses. Which are the best kinds to sow?—WM. C. MONTGOMERY, *Watsontown, Pa.*

We cannot procure the Ash-Leaf Kidney or the Early Cottage in this city. Perhaps some of our readers have them.

The most productive field pea is the common White Creeper. They can be obtained in the seed stores here for \$1.25 per bushel.

In the February number of your valuable paper I read an article on butter-making by "M. S. B.," of Aurora. I thought it to be a very sensible and useful article, containing many good, pertinent ideas in regard to strict cleanliness. I am unable to see why "dash" churning will produce better butter than "crank" churning, or why a little different motion in separating the globules produces decidedly better butter. Perhaps the construction of the two churns, which is usually very different—the crank churn generally having a zinc lining, while the dash churn seldom, if ever, does—produces more difference than anything else. What I mean is, that a person ought to be more particular in washing zinc than wood. And here is the idea of cleanliness brought up again. But I am open to conviction. Will your worthy contributor please explain, and oblige
AN INQUIRING MIXD.

WILL some one through the *Farmer* inform me what will kill bugs in peas. Last year I tried boiling water and lime, which did not seem to have any effect. Just as lively after the operation as before.

What variety of peas are most successful against the bug? I have tried various kinds, the last of which were the Red or Sugar pea, and have failed in all.—L. WRIGHT, *Pierpont, Ohio.*

THE culture of small fruits is attracting much attention in this neighborhood, and I am sure some good articles on the growth and management of small fruits, and more especially the grape, would be of much use to us.—M. B. SNYDER, *Brighton, Iowa.*

Will some of our experienced cultivators furnish the desired articles?

SALTING STOCK.—My method of salting stock is to take half a salt-barrel and place it in the corner of the yard, securing it with three stakes. Put in salt as often as necessary, adding one-third unteached ashes for summer use, and a little sulphur for winter. This keeps the animals free from lice and bad humors.—N. N., *Genesee county, N. Y.*

Large Clover.

A correspondent at Mercersburg, Pa., writes us in reference to the remarks in the last number of the *Farmer* in regard to the large or pea-vine clover. That a few years ago his father raised it, and found that it produced more fodder than the small kind. It is also softer, and horses eat it better. He thinks it better for plowing under than the common clover. Some farmers in his neighborhood raise the seed, by pasturing a field till June, and then let the clover grow up, but he thinks it better to let a first crop go to seed.

Deferred.

We are compelled to omit several communications intended for this number. They shall appear next month. We should feel much obliged if our correspondents would write earlier.

The Markets.

OFFICE OF THE GENESEE FARMER,
ROCHESTER, N. Y., April 27, 1864. }

SINCE our last report there has been great fluctuations in the price of Gold. It one day "touched" 190, but soon fell back to 170. It is now 180. Of course the Grain market was similarly affected.

There was great excitement in the Wool trade, becoming more intense as the price of Gold advanced. Buyers entered the market with a determination to purchase at any price. Some lots changed hands at an advance of 15c. $\frac{3}{4}$ D

On the whole, however, the advance in Wool is not equal to the advance in Gold, and it is not improbable that high figures will be obtained for the forthcoming clip.

In England, last year, Wool was higher than it had been for many years, but the prospects now are that it will be still higher the present season. Already buyers are in the market, purchasing fleeces of fat sheep, at prices ranging from 2s. 3d. to 2s. 6d. $\frac{3}{4}$ D. The latter price is equal to 60c. of our money in Gold. With Gold at 180 this 60 cents is equal to \$1.08 in paper money! In other words, Wool is now selling in England at \$1.08 $\frac{3}{4}$ D—and this, be it remembered, is coarse Wool.

NEW YORK CATTLE MARKET.—The price of first quality Beeves is higher than ever before known. At the last New York Cattle market 14 Bullocks were sold at \$186 $\frac{3}{4}$ head, which, the *Tribune* states, was "estimated by disinterested parties equal to 17 $\frac{3}{4}$ c. $\frac{3}{4}$ D net!"

The same paper remarks: "The extraordinary high rates lately current, have tempted owners of some very rough stock, to send it, decidedly not fat, and we have reason to fear will drain the country of Store Cattle, so that in future the price will hold higher than it has for several previous years. The high prices have already seriously affected farmers in this vicinity, who depended upon buying Cattle in this market in April to graze through the summer. Many will be quite unable to get a supply, not daring to venture upon such high prices as prevail here to-day."

Milk Cows have again advanced. Cows that would not sell readily a few months since at \$35@40, are now worth \$50@60, and it is difficult to find a good family Cow with young Calf at less than \$75.

Sheep are very active. Prices range from 11c. to 12 $\frac{1}{2}$ c. $\frac{3}{4}$ D live weight—"the highest price ever known." Very few young Lambs were in market, and commanded "fabulous prices"—say 17@25c. $\frac{3}{4}$ D.

Hogs bring from 8 $\frac{1}{2}$ to 9 $\frac{1}{2}$ c. $\frac{3}{4}$ D live weight.

Special Notices.

Coe's Superphosphate of Lime.—Mr. COE has received the following letter from the Reverend Mr. PAPINEAU, of Bishop's Palace, Montreal:

MONTREAL, March 2nd, 1864.

SIR: Having been appointed Superintendent, last spring, of the Garden attached to the Bishop's Palace, Montreal, I applied to our esteemed Seedsman, Mr. EVANS, for a few pounds of Coe's SUPERPHOSPHATE OF LIME, in order to judge personally of its fertilizing effects as a manure, and to satisfy myself whether it really deserved the high reputation in which it was commonly held. [I generally distrust the reliability of widely-advertised articles.] But now, Sir, I deem it my duty to assure you that the success of the Superphosphate greatly exceeded my anticipations, and that I believe it to be superior even to its reputation. I planted a piece of very dry, hard and barren land with potatoes and Indian corn, manuring a portion with stable compost, another portion with common kitchen salt, and the remainder with the Superphosphate of Lime. The crop gathered from the plot manured with this latter substance was far more abundant, and was taken out of the ground fully ten days earlier than the crops manured with compost and salt. I have used the Superphosphate

with equal success on onions, cabbages, beans and peas. The Superphosphate of Lime, in my opinion, is one of the most powerful and economical fertilizers known for the cultivation of gardens. It does not force all sorts of noxious weeds into existence like stable manure, but, on the contrary, imparts rapidity of growth and vigor to the useful herbs. I can not recommend it too highly to gardeners and others, convinced as I am that they will be well pleased with it.

Allow me to thank you, Sir, for the powerful fertilizer you sent me, and believe me to be, Sir,

Your very humble servant,

T. V. PAPINEAU, Priest.

Sold by ANDREW COE at Montreal and Toronto, and by Agents in all of the principal towns in Canada.

Brown's Bronchial Troches.—This *Universal Remedy* for Coughs, Colds and Bronchial Affections now stands the first in public favor and confidence; this result has been acquired by a test of thirteen years. Its merit and extensive use has caused the Troches to be counterfeited, and we would caution purchasers to be on their guard against worthless imitations.

Mr. Editor: If your readers want Strawberry or other small fruit plants, of best quality and variety, *cheap*, let them apply for priced list to

E. WILLIAMS,
Montclair, New Jersey.

ADVERTISEMENTS.

A FEW short advertisements of interest to farmers—and only such—will be inserted in the GENESEE FARMER at twenty-five cents a line, or \$2.50 per square, or \$25 per column, each insertion, payable in advance.

THE GENESEE FARMER:

A MONTHLY JOURNAL OF AGRICULTURE AND HORTICULTURE.

Published at Rochester, N. Y., by

JOSEPH HARRIS.

Terms—INVARIABLY IN ADVANCE—Seventy-five cents a year; six copies for Three Dollars, (only fifty cents each.)

Postmasters and all Friends of Rural Improvement are respectfully solicited to obtain and forward subscriptions.

The address of papers can be changed at any time.

Subscription money may be sent at our risk. Address

JOSEPH HARRIS, Rochester, N. Y.

GOODRICH'S GARNET CHILI POTATO
FOR SALE.—Price, \$3 per barrel, delivered at railroad.
my1t* B. F. McMILLAN, Conesus Center, Liv. co., N. Y.

\$2 MADE FROM 20 CENTS!—Call and examine, or ten samples sent free by mail for 20 cents. Retail for \$2 by R. L. WOLCOTT, 170 Chatham Square, N. Y. my'64-1y

\$80 PER MONTH!—AGENTS WANTED IN EVERY TOWN. It is something new and of real value. For particulars address, with stamp,
my2t* J. S. PARDEE, Binghamton, N. Y.

\$75 A MONTH—Agents wanted to sell Sewing Machines. We will give a commission on all machines sold, or employ agents who will work for the above wages and all expenses paid. Address,
my4t* D. B. HERINGTON & CO., Detroit, Mich.

TO INVENTORS AND PATENTEEES—Inventions EXAMINED and opinions given without charge. Patents OBTAINED; Patents RE-ISSUED; Patents EXTENDED. No charge for rejected cases unless successful. J. FRASER & CO., Western New York Patent Agency, Buffalo and Rochester, N. Y. ap2t

TO FARMERS!

BRADLEY'S TOBACCO FERTILIZER, AND BRADLEY'S X L Superphosphate of Lime, are for sale at wholesale and retail by the Manufacturer. W. M. L. BRADLEY:

Sales Office 24 Broad street, Boston.

Pamphlets containing testimonials in favor of his Tobacco Fertilizer. Bradley's X L Manual on the Culture and Curing of Tobacco, with Illustrations, can be had by addressing the undersigned. W. M. L. BRADLEY, my

Highest Cash prices paid for Bones.

Sore Throat.

**Cough.
Cold.**

And similar troubles, if suffered to progress, result in serious Pulmonary, Bronchial and Asthmatic affections, oftentimes incurable.

Brown's Bronchial Troches

are compounded so as to reach directly the seat of the disease and give almost instant relief. my1t

Maryland Farms for Sale.

WE have for sale over Two Hundred FARMS in this State, of as beautiful and productive land as ever the sun shone upon, having access by railroads, steamboat and turnpikes.

These Farms, in many instances, can be bought for less than the improvements upon them cost, in consequence of the change from slave to free labor.

As Surveyors we have an intimate knowledge of the lands of this State. Inquiries by letter will be promptly answered.

R. W. TEMPLEMAN & CO., Real Estate Brokers,
ap3t Baltimore City, Md.

PEAS—PEAS.

I HAVE now on hand and offer for sale at the Genesee Seed Store, 17 South St. Paul street, Rochester, N. Y.,

- 250 bushels Canada Creeper Peas;
- 200 bushels Black-eye Marrow Peas;
- 100 bushels Missouri Marrow Peas;
- 75 bushels Dwarf Blue Imperial Peas;
- 50 bushels Early Washington Peas;
- 10 bushels Early Daniel O'Rourke Peas;
- 10 bushels Victoria Marrow Peas;

All of the very best quality grown in Canada. my1t

J. RAPALJE.

AMMONIATED PACIFIC GUANO.

A REAL GUANO, containing from 70 to 80 per cent. of phosphate of lime, to which has been added by a chemical process a large per centage of actual ammonia, so fixed that it can not evaporate, making it equal, if not superior, to any other fertilizer.

Pamphlets with copies of analyses by Drs. Jackson, Massachusetts State Assayer, and Liebig, of Baltimore, and testimonials from scientific agriculturists showing its value, can be obtained from J. O. BAKER & CO., Selling Agents, 57 Wall street, New York. ml6t

FRUIT BASKETS.

TO all interested in the berry trade we say: If you wish for convenience in picking, preserving, transporting or showing off small fruits, procure our

Improved, Durable and Stylish Fruit Basket.

Being low, large across the top, and airy, our Baskets are more completely adapted to the wants of the trade than any other form or kind known or used in the American market.

For Circular of Description and Price of Baskets and Crates, address A. BEECHER & SONS, my1t Westville, Conn.

FLOWERS FOR THE GARDEN.

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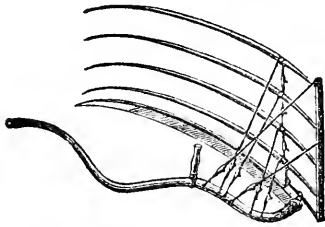
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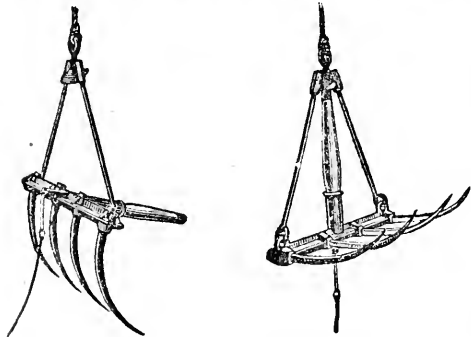
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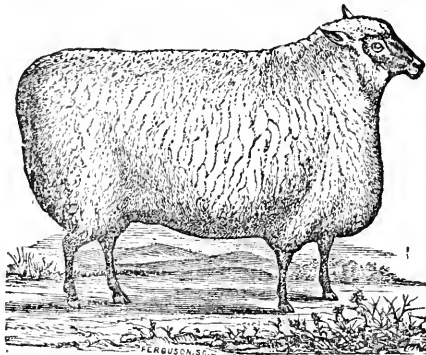
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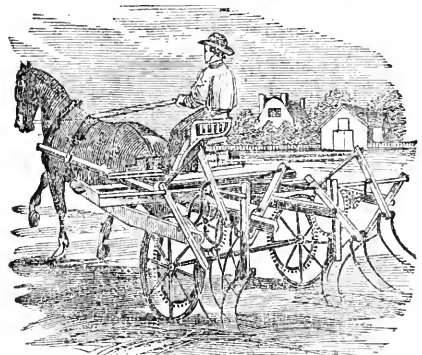
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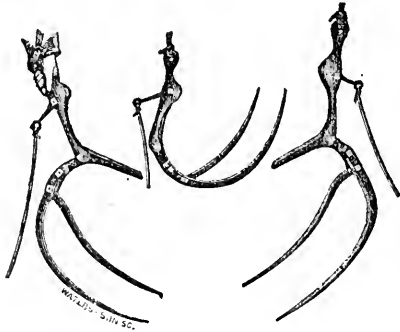
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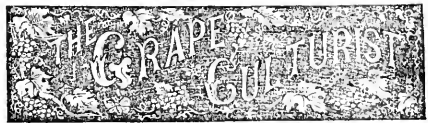
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THE Genesee Farmer.

PRACTICAL AND SCIENTIFIC FARMERS OWN PAPER.

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ROCHESTER, N. Y., JUNE, 1864.

No. 6.

WALKS AND TALKS ON THE FARM.—NO. 6.

I HAVE just been setting out some strawberry plants, and as land is plenty and labor scarce, I set them in rows four feet apart and fifteen inches in the rows. I do not propose to let them run so as to occupy the ground between the rows, as is the general practice, but intend to keep down the runners and cultivate the plants in hills. In this way we can get larger strawberries, picking is easier, and the plants will last longer. The Belmont or Boston method is to set out the plants in the spring in rows three feet apart and fifteen inches apart in the rows. Cultivate the ground carefully with a horse hoe till the plants begin to run. The following summer they will bear a large crop—and that is the end of them. The whole crop is then plowed under, and the land sown to turnips or some other late crop. For market purposes, this is probably the best method; but when you wish for extra nice fruit for your own use, planting in hills and keeping down the runners is to be preferred. There is no pleasanter sight in a kitchen garden than a plot of luxuriant strawberries in hills, with the land well mulched with grass, not a weed to be seen, and the heavy clusters of fruit bending the strong stalks to the ground. But to obtain such results, the hoe must be freely and constantly used.

I got the blacksmith to make me a schuffle hoe out of an old grass scythe. It is fifteen inches wide. For cutting up small weeds on light land nothing



can beat it. He made the whole thing out of the scythe, using the rim to make the bows to which the blade is riveted.

I have just been reading an article in the *Country Gentleman*, on "Shading Crops," evidently from the pen of J. J. Thomas. He believes in *hoeing* as thoroughly as I do,—and some of my friends regard it as one of my hobbies. Surely, no reader of an agricultural paper at the present day believes there is any advantage in "shading" ground by allowing

the weeds to grow. I have heard people contend that they kept the ground moist, and even the author of one of our horticultural books recommends sowing turnips among dwarf pear trees, in order to shade the ground and keep it moist. But a moment's reflection would show the absurdity of the idea. That plants in growing, pump up water from the soil and dissipate it through their leaves into the atmosphere more rapidly than it will evaporate from the bare surface, is a well known fact. When I was at Rothamsted, Mr. Lawes made some experiments, the results of which showed the enormous amount of water that plants give off during their growth. They showed that, from March 19th to September 7th, an acre of wheat—equal to thirty bushels per acre—evaporated through its leaves 355½ tons of water, or over 500 gallons per day! An acre of clover, equal to two tons of hay, would evaporate over 1,000 gallons per day!

We all know how much drier woods are while the trees remain, than the same or similar woods are after the trees are cut down. The trees take up and evaporate the water.

The article in the *Country Gentleman* to which I have alluded suggests the following experiment:

It is familiar to most of our readers that plants in dry weather pump up large quantities of water out of the soil, and dissipate it freely from the surface of the leaves in the form of vapor. It would impress a valuable lesson on the mind of any one not familiar with this fact, to try the following experiment: Allow a piece of ground, say ten feet square, to grow up with a dense mass of grass or with a crop of rank weeds; adjoining it let a similar portion be perfectly free from vegetable growth, and keep the surface mellow by a thorough raking or hoeing once a week or oftener. The superficial observer would say that the exposed and bare soil thus subjected to the burning rays of a summer sun, would soon become dry, and all the moisture dispelled from it, while he would take it for granted that the dense covering of the cool, shading leaves on the other portion would keep the soil cool and moist below. If he is not already aware that the exposed mellow soil forms a perfect mulch for the earth below on one part, and that the thousands of stems of living plants on the other are bringing up and discharging water into the air at a rapid rate, he will be very much surprised on thrusting a spade into different places, to find that the exposed soil is quite moist below the surface, even if

there has been no rain for weeks, while the "shaded" part will come up *dry* from the full depth the spade has gone down. We advise every one to try this experiment, on account of the clear ocular demonstration it affords.

The practical deduction to be made from these facts is, that a mellow soil with a mellow surface will retain moisture better than in any other condition. A mulching of straw or other litter (this matter being in a dead or decaying state) answers a good purpose to keep the soil moist below; but it is not so good nor efficient as the mulching of an equal thickness of pulverized earth. Pass down through a stratum of straw four inches thick, and observe the degree of moisture; then remove four inches of mellow top soil from another place, and a greater degree of moisture will be evident. A hard, bare and unpulverized soil will not retain moisture nearly so well as one that frequently has the crust broken and kept mellow. Still worse than a hard surface is a growth of grass and weeds. If these facts were sufficiently appreciated and understood, the instances would be less frequent of tree-planters allowing their young orchards and fruit-gardens to become hard and crusted, or to grow up with weeds; and few would ever think of setting out young trees in grass, sooner than they would plant a crop of potatoes in an unplowed pasture or meadow.

A further illustration is furnished by the practice of one of our best farmers, who cultivates his corn crop once a week regularly, the whole season through, or until the large, encroaching ears forbid the passing of the horse. His corn is larger in consequence, and his fields are as clean as a floor when the corn is cut up.

In an article written for the *Rural Annual and Horticultural Directory* for 1864, by Thomas Meehan, editor of the *Gardeners' Monthly*, he says:

No one would suspect what a difference there is in the temperature of a clean, cultivated surface over one under a regularly mowed lawn. The day of this writing (August 8th) the thermometer one foot under a cleanly cultivated grape border on the grounds of James Wright, Esq., of Philadelphia, as tested for me by Mr. W. Joyce, his gardener, stands at 98°. Only four feet from this spot, on a closely kept lawn, and at the same depth of one foot, the thermometer is but 82°.

This is an interesting fact. The cultivated soil was warmer, and undoubtedly moister, than that in grass; and heat and moisture are two of the essential elements in rapid growth.

I have just been reading a lecture delivered at a scientific meeting of the Royal Dublin Society, by Mr. Lawes, of Rothamsted, on the science of feeding, as applied to the production of meat and manure. The subject is an elaborate one, but there is no man better qualified to discuss it. Mr. Lawes has been investigating this and kindred subjects for more than twenty years. He illustrated his lecture with diagrams and tables embodying some of the main results of these investigations. It has been the opinion of many scientific men that a food was nutritious in proportion to the nitrogenous, or so-called flesh-forming constituents which it contained. Mr. Lawes' experiments prove that so far as mere

nutrition is concerned, the value of a food is in proportion to the available carbonaceous matter, such as oil, starch, sugar, &c., which it contains. It is admitted, however, that a certain amount and proportion of nitrogenous substance is essential in the food of animals; and Mr. Lawes says: "If it were desirable to state in a few words (subject, of course, to much reservation) what was the approximate proportion of the nitrogenous to the digestible non-nitrogenous substances below which they should not exist in the food of our stock, he should say, about such as we find them in the cereal grains; and since few of our stock foods are below, and many above this in their proportion of nitrogenous substances, it results that we are more likely to give an excess than a deficiency of such constituents, so far as the requirements of the animals are concerned."

Such remarks are hardly applicable to the general system of agriculture adopted in this country. There are few farmers who use any kind of cattle food that is not produced on the farm; and it is admitted that the value of the manure is in proportion to the amount of nitrogen in the food.

Peas may not be more nutritious than Indian corn, but as they contain twice as much nitrogen, and as the manure obtained from them would be twice as valuable, it would be better, in case we must sell either, to sell the corn and feed out the peas on the farm.

The great change which has taken place in the practice of feeding stock in modern times, consists in bringing the animals much earlier to maturity by means of careful breeding and more liberal feeding. This point is clearly shown by contrasting the results of some experiments made in 1794 by the Duke of Bedford, to determine the comparative feeding qualities of Southdown, Leicester, Worcester and Wiltshire sheep, with similar experiments made a few years since by Mr. Lawes to test the comparative fattening qualities of Southdown, Hampshire Downs, Leicester and Cotswold sheep. In the Duke of Bedford's experiments, twenty sheep of each breed were selected and weighed on November 19th, 1794. To each lot was allotted sixteen acres of pasture, and in the winter some turnips were thrown upon the pasture, and a small quantity of hay was also provided. On February 16th, 1796, after a period of sixty-four weeks of feeding, the experiment was concluded and the sheep sent to market.

Over the whole period the sheep gave an average increase of 40 and 50 pounds per head.

In Mr. Lawes' experiments each lot of forty or fifty sheep were put up to fatten in November, when their weights were very nearly the same (about 100 pounds) as those of the Duke of Bedford's sheep; and when fat they had increased in about the same degree, namely, to an average of 150 pounds each.

In Mr. Lawes' case, however, this increase was obtained in twenty weeks; while with the old-fashioned sheep and the scanty feeding of the past century, it took *more than three times as long* to accomplish the same result. _____

"It's raining again!" So said Michael an hour since, sadly but not unpleasantly. We were harrowing in the peas with what the manufacturers' denominate a Share's Coulter Harrow Pulverizer and Grain Coverer." It is a good implement—just the thing to cover peas—but like the common harrow it will not do good work in wet weather. And alas! this is the only weather we have had for the past two weeks. It rained hard yesterday, and the day before we had a little sprinkling of snow. This morning opened fair, and by noon the sun came out. The barometer was rising, and every thing once more wore a pleasant aspect. Men and horses seemed to feel better.

Three days ago I had sown some peas, but could not get them all harrowed in before the rain came on and stopped us. There they have lain on the surface ever since. I set two teams to harrow, and had not been at work more than two hours, when it rained again! It was nothing more than a sharp shower, but enough to prevent further work for the day, and send us all home to the barn. I felt like saying, "It is too bad!" but out of respect to the Doctor did not, as he thinks all such expressions are a reflection on the ways of Providence.

But it is certainly discouraging. I have had the ground plowed and harrowed for barley for two weeks past, and have not yet been able to sow a grain. It would have done to sow once or twice, but wishing to get it in in very nice order, I waited "till to-morrow"—and then it rained! It is all very well for agricultural writers to tell us never to sow land when it is wet, but such a season as this would put their theory and their patience to a severe test.

The fact is, as John Johnston's Scotch grandfather remarked, "All the airth needs draining." Certainly that small portion of it that has come into my possession needs it very much. Such a wet spring as this has been has given a good opportunity for ascertaining the wet portions of the farm. Though most of the farm is high rolling land, I do not believe there is a single field where there is not at least one wet spot—and so it is with most of the farms in Western New York. Prof. Buckland, of Canada, sometime ago remarked that if the money spent in our efforts to suppress the present gigantic rebellion had been spent in judicious underdraining it would have made us the richest nation in the world! I was, at the time, somewhat inclined to smile at the remark, but there can be no doubt of its truthfulness. National prosperity, however, is by

no means the highest good either for nations or individuals. Wealth does not give wisdom.

I used to think it would pay to raise beans to feed out to sheep on the farm. They tax the soil but little, can be sown late in the season, and admit the use of the horse-hoe; while the manure made by an animal consuming them is richer than that made from any other grain—somewhat richer than that from peas, and twice as rich as that from corn and other cereals.

The demand for beans in the army is so great that they now bring high prices; and their extensive cultivation, especially on wheat farms, would undoubtedly be profitable. The crop will be off in ample time to sow wheat this fall, and if the ground has been well cultivated and hoed it will be almost as clean as if it had been summer-fallowed.

The best soil is a gravelly loam, but they will do well on almost any soil if well cultivated. On heavy soil use a little more seed. I intend to plant this year on a clover sod. I plastered it about a month ago, and the clover is now about six inches high. I shall turn it under as neatly as possible, just before planting the beans. The later it is plowed the less hoeing will be required—or rather the less weeds will there be, for hoeing, itself, is desirable, whether there are weeds or not. However, I shall be saved all temptation to neglect hoeing on this account;—there is no lack of weeds on my farm. I thought of planting in hills two and a half feet apart, so that I could horse-hoe both ways; but I am told that it is far better to drill them in. Mr. John C. McVean, of Scottsville, who has had considerable experience in growing beans, and has been very successful, uses an ordinary Macedon grain drill. He takes out all the spouts except the centre one and the two outside ones; then drive so as to leave eight inches between the wheel tracks, which leaves the drills thirty-two inches asunder. He uses the large cavities made for sowing coarse grains, and the eight-peck wheel. In this way he sows about three pecks per acre.

It rains again! What will become of us? Winter wheat is likely to turn out badly, both in this section and throughout the West; and if this weather continues much longer, our spring crops will not make up the deficiency. Mr. A. told me today that he had not, as yet, "turned a furrow." It quite consoled me to hear him say so. I am at least no worse off than my neighbors—though I understand that some of them, who regard me somewhat in the light of a "Book Farmer," are disposed to laugh at the predicament I have fallen into in regard to my peas! They do not like my using artificial manures. "Give me good barn-yard manure," one of them said to me the other day, "and you are

welcome to all your guano and superphosphate." I say so too. But how are you to get the manure? My farm has been rented for several years, and is "pretty well run." To make manure you must have something to make it with. If I can raise a good crop of peas, or clover, or corn, by the aid of "artificial," I can then make manure; and this is one object I have in view.

I have just been using one of Remingtons' two-horse cultivators. It is the best implement of the kind I have seen in this country. For mellowing the soil and putting in spring crops we much need a cultivator with long slender teeth sloping forward. The Remington Cultivator comes nearer to this than anything I have used. The common two-horse wheel cultivator is much harder on the team, and does not do anything like as good work. Tom says it is "a regular horse killer."

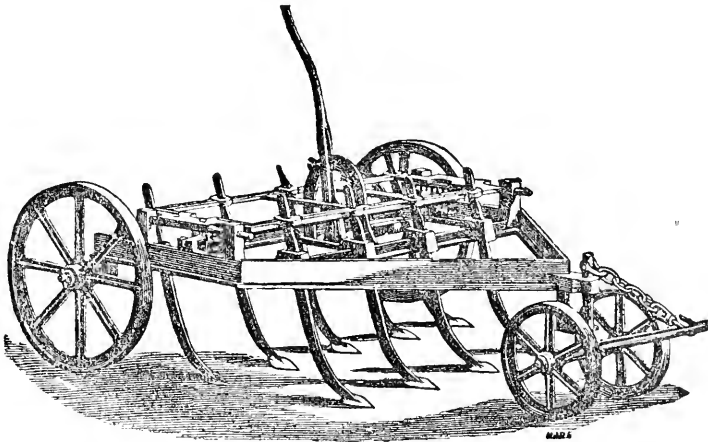
The teeth of our cultivators are usually set too upright, and strike the soil too abruptly. The Eng-

half the labor of a man—which in these times is no small item.

Timothy D. Buck, of Allegan, Mich., writes me asking whether it will "pay to plow in buckwheat on summer-fallow to enrich it for wheat, or is it better to keep it clean." On a good loamy soil, well drained, I certainly would not plow in buckwheat, but on a heavy soil, rather wet, it might be advantageous to do so. The buckwheat would make the soil more porous.

I have a piece of land that was seeded down last spring with oats, and the clover did not catch. The land is not rich enough for spring crops, and I design fallowing it for wheat. One of my neighbors urges me to sow buckwheat on it and plow it in. He says he did so in a similar case a few years ago, and had a splendid crop of wheat.

At the present price of buckwheat it is as profitable a crop as any we can raise. It can be sown in July, after we are through with other crops, and involves little labor or expense of any kind.



AN IRON SCARIFIER.

lish scarifier is an improvement in this respect. It is made wholly of iron, and the teeth are not as broad and are set more obliquely. A similar instrument has been introduced into Canada, and I wish some of our manufacturers would get us up something of the same kind. Let us have a scarifier that will work easily and pulverize the soil five or six inches deep.

We also need a good harrow. The harrows in common use are miserable affairs. They are mere "drags." There is no flexibility to them. A good modern English or Scotch harrow will pulverize the soil much better and in half the time. I would like a set of three harrows that would take a wide sweep, and so arranged that there would be plenty of "play" to them. By putting on a three-horse team we should get over much more land and save

Rain, rain, rain. Was there ever such a spring as this? One of the oldest inhabitants in the town says he can not recollect such another one. I have not yet (May 16th) been able to sow my barley. If I can not sow it this week I will give it up and plant beans on the land, and sow wheat after them in the fall.

The winter and spring have been both bad for the crops, and the comparative failure of the great corn crop at the West, and the consequent high prices, have caused great suffering among cattle. The *Tribune* publishes a letter from a correspondent at Dongola, Ill., headed "Between Hay and Grass," which gives rather a gloomy account of farming in the Prairie State. He has just taken a journey through the State, from South to North, and says:

In Southern Illinois the woods usually begin to

look green, and the cattle to find grass enough in the bottoms to live on by the 1st of April. Now, so backward is the season that only a few trees are leafing out, and the cattle find most scanty picking. It is said that many of the forest trees were killed by the cold winter.

Through Central and Northern Illinois meadows just begin to look green, but blue-grass pastures, whether in open woods or prairie, have a fresh look, and cattle thrive well on it. Few common farmers are so fortunate and so wise as to have blue grass. I noticed that many have turned out their cattle into fields perfectly black, where they go through the motions of eating, and some have an additional work on hand—which is, to brace themselves, that they may not fall down. *There is no doubt that there was never before so many poor cattle in Illinois and the West.* Often do they abound in lice, and their owners try all remedies, anxious to learn one which is effectual. The best thing is to card thoroughly every day; for in carding, thousands will drop off. This may be said to be a sure preventive.

Often, on going out in the morning, a creature is found lying down and unable to get up. When food is brought to it it will eat well. If it is not a heavy animal, the farmer and his boys and girls—sometimes the wife—come out, and by lifting and twisting they get the poor thing on its legs; but it shows signs of falling over, and the boys will spread out its feet so that it may have a broad base, or when they would have it walk they lift up its feet. Sometimes it is so weak that it will give a plunge forward, or will settle down upon its legs, when it will helplessly stretch out and sadly roll back its eyes. Fully one-half of such cases are hopeless. But such scenes here were unavoidable this spring, even on common farms, well managed.

The loss of stock has been quite large. I have heard it stated as high as from twenty to thirty head on farms here and there. One main cause for this was a want of a correct estimate of the nutriment contained in frosted corn. Horses here have not suffered quite as much, though many have died, while hogs have died by the hundred.

Perhaps sheep are doing better than any other stock; for where there were only a few they managed to live, though they drop much wool; and where there are large flocks, their owners know enough to take care of them. But large flocks eat much; the corn fed them has had so little heart that more was required than was expected; and some who lost sheep by the hundred in the frost and snow have almost thought they would have made money if they lost more, for the dead sheep were sold to Chicago buyers at from \$1.50 to \$2 a head.

The regular stock-growers, who for the most part understand their business well, are bringing out their cattle in good condition—some say, never better. They knew they had to do their best. They expect to fatten on grass, and to ship east by June. Those who have stall-fed during the winter have good specimens, and they expect and deserve good prices; but I believe the number of fat cattle is far less than some suppose. One stock-grower in Champaign county assured me there was not more than one this spring where there were fifty last spring. He said, this may seem a wild statement, but it could not be otherwise; since their surplus corn, which makes beef, was swept away by the frost. He related an instance which shows the difference between men who understand their business and those who do not. The case was of a man belonging to a class of what he called "buckwheat farmers," who is tolerably well off, has a large barn and much stock. Last fall he sold twenty tons of

hay at \$6, in January, twenty tons more at \$10, and thought he was making his fortune. This spring he has been buying hay far and near at \$20, and giving his note, that he may save a part of his stock.

When we recollect that four-fifths of all the cattle sent to New York come from Illinois, we can hardly wonder that beef again advanced one cent per lb. last week. There is undoubtedly a real scarcity of fat cattle in the country.

The same writer says that the farmers are straining every nerve to plant all the corn they have power to cultivate, and a large breadth of spring grains has been sown. Provisions of all kinds are very scarce. "So general is the scarcity," he says, "that I do not believe there is a county in which there are not some persons who are sending to Chicago for provisions. I know of some counties in Central Illinois which used to help overstock Chicago with potatoes, now sending thither for potatoes to plant. Thousands of villages in every part of the State are sending for butter, and when it comes it sells for fifty cents. Hitherto, these same villages have overrun with butter, and being white, at this season, the merchants have been glad to make sales without losing. In the stores of many of these villages eggs were so plentiful that there was one clerk, at least—often it was a hired hand—who did nothing from morning till night but count eggs and pack them. Even last spring, in many places, they were sold for three cents a dozen.

Deacon B. says he sold some corn last week to a neighbor for \$1.12½ per bushel. On going to the city, the next day, he was told that it was selling for \$1.30 per bushel. Prices advance so rapidly that it is almost impossible to ask enough. I had three calves to sell, and adopted my old rule of fixing the price pretty high, and keeping them till they were worth it. The butchers would ride past and call out, "Any fat calves to sell?" "Yes—three." "What do you want for them?" "Thirty dollars for the three." Some went to look at them, and thought I asked too much. "Very well," I said, "I will keep them till they are worth it." And it was but a few days before one of them came along and handed over the thirty dollars, grumbling a little, however, as the manner is, at the price. He was afraid that if he did not take them, another would.

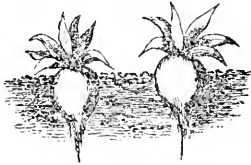
I have at length got in my barley—and in better condition than I expected. I have given the field a heavy dressing of bones, ammoniated guano and Bradley's superphosphate, and hope for a fair crop, although the season is late. If dry weather should set in, I shall probably be disappointed.

I have, also, at length got my peas covered. I sowed an extra bushel of seed to the acre, and gave them a good dressing of guano and plaster.

FARM WORK FOR JUNE.

CORN FODDER.—Continue or finish the sowing of corn fodder, as described last month. It will succeed if sown any time during the month. It is a great advantage to have a succession for soiling, in the dry part of autumn. By sowing large kinds early, and small or early varieties late, a long succession may be obtained. Any vacant ground may be well filled up with this crop, and if sown in furrows, as already described, and cultivated twice, it will leave the ground, when harvested, clean and in fine condition, and the roots remaining will enrich the land. Hence, the corn fodder crop may be regarded as one of the best for improving the soil.

RYE BAGAS.—These succeed well on all rich and rather light soils. Unless the soil be well enriched,



Well Cultivated Root Crops.

it will be seed wasted and labor lost. They can not be sown profitably without a good drill which will plant several acres per day.

In small experiments the seed may be dropped by nailing a tin cup to the lower end of a cane or stick, perforating the bottom with a small hole, a trifle larger than a seed, and shaking this with the seed along the drill, and covering by raking. This does well



for garden crops. Never allow the weeds to become more than an inch high, and thin out the plants to at least one foot apart in the drill, or a foot and a half in very rich land. All novices in raising this crop may be easily known by leaving too many plants, which crowd and diminish each other in size.

CULTIVATING AND HOEING CORN.—Every farmer should endeavor to accomplish as much as possible by horse-labor, and save hand-hoeing. To this end the soil should previously be in as clean condition as practicable, and perfectly straight and even rows will allow the cultivator to pass closely to them. More corn will grow on an acre if planted in drills, or in thick rows of hills in one direction; but when labor is scarce, it may be more economical on the whole to plant in hills both ways, unless the land should be unusually clean; the nearer the rows or hills can be to each other—that is, the more evenly distributed the corn is over the ground—the greater will be the crop, other things being equal. One of the best farmers we know, plants his corn three feet each way. His average is eighty bushels per acre; he has obtained one hundred and thirty, with high manuring and best management.

While it is desirable to employ enough hand labor to keep down every weed, the main reliance should be on horse culture—one horse accomplishing about as much as ten men. An excellent practice, which has proved very successful, especially in strong soils liable to become crusted, is to pass the cultivator once a week regularly, from the time it is up until too large to admit a horse between the rows.

Where there are missing hills in the cornfield, re-plant with an earlier sort, or plant three hills of bush beans to each hill of corn.

WEEDS.—Prompt and energetic destruction of weeds constitutes a prominent portion of the labors of this month. The great point is to take them early, when they are small and feeble. A weed in growing from an inch to a foot in height, increases as the cube, or a thousand fold in weight or bulk, and exhausts the soil correspondingly. Single weeds often produce 500 to 1,000 seeds—sometimes several thousands. Scattering these over the soil occasions necessarily a great increase of labor another year.

HOES.—Procure the very best that can be had in market. The difference in price between a cheap and a good tool may be earned by the latter in a single day. Keeping hoes ground sharp will enable the laborers who use them to perform more and better work.

CLOVER SEED.—The first crop should be cut before the end of this month; or if pastured down, the animals should be removed at the same time.

SHEEP WASHING should be performed as early as the weather will safely admit—and after shearing, special care should be taken to shelter the sheep during cold storms.

If animals become bloated from eating fresh clover, the best remedy is a dose of pulverized charcoal, say a tea-cup full to a full grown cow, and a dose of corresponding size for other animals, according to their weight. The charcoal is best if fresh, or if kept corked air-tight in bottles. It should be mixed well with water, and may be poured down the throat from a junk bottle. Fresh, burning coals from any wood fire, pulverized at once in a mortar, will make a good material, but the article usually sold and made in coal pits is too hard, and generally too old to be good.

ORCHARDS.—Newly set orchards should have the soil well cultivated or mellowed about the trees, and kept perfectly clear from grass and weeds. On the approach of hot and dry weather, a wide and deep mulching of old straw or other litter will be useful. All orchards should be carefully examined for the borer, which, if taken in time, may be easily killed before it has gone far into the wood; even afterwards, by clearing away the powdered wood, the insect may be followed and destroyed in his hole, by a wire or flexible twig. Scraping away the earth from the foot of the trunk and applying soft-soap will serve to repel these insects from depositing their eggs, but is not always infallible.

There are a few other operations that should not be forgotten in time: Destroy caterpillars in orchards; whitewash fences and buildings; on rainy days get harvest tools all ready; provide hives for swarming bees.—*Tucker's Annual Register.*

POULTRY HINTS FOR JUNE.

WRITTEN FOR THE GENESEE FARMER BY C. N. BEMENT.

How many monotonous existences have been made cheerful by the poultry fancy! How many acquaintances commenced in a fellow-feeling in this pursuit have become cemented into lasting friendships! and how many homes have been rendered more attractive by the addition of a poultry-yard, on account of the interesting occupation which it creates, unconnected with profit and produce.

"When we had poultry-shows to go to," says an English writer, "for a little quiet recreation, while emulation and sympathy unite to render a visit to a neighbor's poultry yard attractive, and while our own at home furnishes daily and hourly objects of interest, the amateur's life can never be a dull one; a gleam of sunshine, a shower of rain, a warm wind or a cold one, assume an interest which they did not possess before. There is always something going on—a house must be built, a boundary line altered, the yard enlarged, a defective fence (which served for the Cochins and Brahmas) must be raised to keep in the Spanish, the Hamburgs, the Games and the Polanders. Then, if one home in every town be made more pleasant to its owners; if one family in each be made more united in the love of our pursuit, if one dull life in each be changed into a cheerful one, the great poultry movement may boast a double triumph."

And there is another important matter connected with this poultry subject, not to be estimated in dollars and cents, but of far more consequence than either. It is the social and moral influence they exert, especially on the junior members of the family—more particularly the boys. The tenants of the poultry-yard, with their youngling broods, are the things, of all others, which first catch and rivet the attention and determine their devotion to rural life. By their withdrawing their thoughts from trifling games, vicious sports and indulgences, or idle, worthless habits, a great point is gained towards developing and maturing the future useful member of society.

It is known that farmers' sons are rising to manhood, and they are not supposed to be made up of cold attritions, but have social affinities requiring mental aliment corresponding to the development and nourishment of these affinities. They should live under a genial sun, be fed with refreshing showers, and then receive the care of a most social culturist. The flower and vegetable garden are useful fields, are all-attractive with their varied products of beauty and utility, yet they fail to enlist that sympathy and feeling which attractive animal life affords. What better occupation then, or rather, what better amusement can the boys have than to care for and feed, and watch over the poultry-yard? In this way they

may clothe themselves and pay for their books without interfering with the school exercises or any reasonable labor expected from them in other things. If thought desirable, let this be one of their standing perquisites.

Happy for the poor, poultry is just the stock which any of them can buy, feed and rear, however humble their mental capacity may be. The young, the feeble, the halt and the invalid can look after the poultry, as well as the strongest. It is true the poultry department comes more particularly to the care of the "gude" housewife; but the younger branches of the family should take it in hand, particularly the boys; and the farmer should furnish the means to obtain the best sorts, convenient houses to keep them in, and not too rigidly guard the corn crib. A few additional ears of corn will pay compound interest; and a leisure hour in providing them comfort will be far from misspent.

Comparatively few who have not the advantage of an extended farm can indulge in the luxury of improved flocks and extensive herds, but almost every one, not closely hemmed in by the brick walls of a city, can gratify their own taste, and excite that of their children, by keeping a few choice fowls. They are preferable to the usual pets, dogs, cats and singing birds; less danger from disease to them; much more variety, more scope for ingenuity in rearing and attending, and we will not add on which side the profit is likely to be. If for no other reason than to interest the children in a useful, attractive pursuit, we would say to any person who has the room, by all means keep some select poultry.

There will be no doubt about the profits of keeping poultry in the minds of those who keep strict accounts; that is, if they manage them judiciously. No poultry-keeper has a right to complain of want of success, if he neglects keeping a regular account of food consumed, and profit by fowls and eggs sold. Without this he is groping in the dark, and the usual termination of such undertakings end in disappointment and loss.

This hint, we imagine, may prove of service to many of those who can least afford to suffer loss by their poultry, and most desire to increase their gains; for, after all, it is only by following out a regular system of management that any person can expect to satisfy himself that his fowls, of whatever breed they may be, do really pay. Many dislike the little trouble it may create, and looking upon it as an insignificant item, are apt to say, when asked for their opinion, "I believe it pays, but cannot speak positively," and are content to go on as before; but at the same time they have no right to be surprised if their calculations neither convince others nor fill their own pockets.

Near large cities most poultry-keepers prefer rais-

ing early chickens, particularly those who rear for market, as they then bring a great price; but it is not all profit. They are some trouble to rear, and many will be lost from inclement weather. The earliest broods of March and April, if well attended and well fed, will be ready for market by the first of July, and will then command the highest price, say from 70 to 80 cents per pair, which pays a better profit than ever after.

But it is the later broods which now demand our attention. As the weather is warm, the mother hens with their little families of younglings should have large, airy coops, and the coops placed abroad; but in all cases a dry and quiet location should be chosen, near the house, on account of the convenience of feeding them, and where the chicks are not in danger of being trodden upon by either man or beast, nor where the hen will be roasted by the heat of the sun, or where there is danger of the chickens being carried off by hawks and crows. It is not a bad practice to place hens with their young broods in the vicinity of the kitchen garden. A hen with a dozen chickens—the hen being confined in a coop—will do more to secure the preservation of the vegetables than a man; they not only obtain the greater part of their living, but are of great service in destroying large numbers of bugs, worms, insects, and their eggs, which are so injurious to vegetation, which they annihilate and convert into a source of profit instead of a loss, by devouring them as food. We have experienced some difficulty, however, in this, for the hawks, and even the crows, would pounce upon them; and where the vegetables such as beans and peas, were pretty rank, the rats will take shelter, lie in ambush, and catch the young chickens, when running among them. It is well to look to these evils, and we would also advise their removal after they are a month or so old, or they will become so attached to the garden that it will be difficult to keep them out.

The coops should not be placed too near each other, as the chickens are apt to mix and get into the wrong coop, and some hens are so cross that they often kill small strange chickens.

At the end of six or seven weeks the hen may be allowed her liberty, after the dew is off in the morning and the weather fair; and if a movable coop be employed, the door may be left open, or it may be propped up with a stick, and the hen will return to it at night of her own accord, when it may be let down and kept so until the dew of the morning is off. At the end of two weeks more they may be turned into the poultry yard. As they will at first hardly receive fair play in the distribution of food, it will be necessary to prepare for them a feeding-coop, so that they may enjoy their food without being disturbed by the other fowls. This may be

effected by driving strips of boards or stakes in the ground, leaving spaces between just wide enough to prevent the grown fowls from entering, encircling a space five or six feet in diameter and about two feet high, covered with boards, through which should be a small aperture or door, where the feed may be put in the feeding-box made for the purpose.

When chickens are confined to a narrow space it requires much pains to supply them with all the kinds of food which they collect when running at large; and without care to supply their wants, they will not thrive well or be profitable. When running at large in a lawn or pasture lot, they devour many insects and grubs, and many kinds of herbage, various sorts of seeds, and many other things which we cannot discriminate, though we look on while they select their food.

To ensure rapid and full growth of chickens, good, substantial food should be given them with a liberal hand; there is no economy in half starving them. Ground oats and boiled potatoes mashed and moistened with milk (if a little soured none the worse) will increase their flesh, while corn will fatten them. The food is a matter of much variety, as various articles are used for the purpose of fattening fowls. In Buenos Ayres they are made quite fat by feeding on the dead horses; it being no uncommon thing to see a hen with a whole brood of chickens coming out of the carcass of a dead horse. The flavor of their flesh must be abominable, and that of their eggs but a little better.

THE PROPER WAY TO BIT A COLT.

FARMERS often put a biting harness on a colt the first thing they do to him, buckling up the biting as tight as they can draw it, make him carry his head high, and then turn him into a lot to run half a day at a time. This is one of the worst punishments they could inflict on a colt, and very injurious to a young horse that has been used to running in pasture with his head down.

A horse should be well accustomed to the bit before you put on the biting harness; and when you first bit him you should only rein his head up to that point where he naturally holds it, let that be high or low; he will learn that he cannot lower his head, and that raising it a little will loosen the bit in his mouth. This will give him the idea of raising his head to loosen the bit, and then you can draw the bit a little tighter every time you put it on, and he will raise his head to loosen it. By this means you will gradually get his head and neck in the position you wish him to carry it, and give him a graceful carriage, without hurting him, making him angry, or causing his mouth to be sore.—*Rarey.*

THE PEA-VINE AND OTHER VARIETIES OF CLOVER.

EDS. GENESEE FARMER: In the April number of the *Genesee Farmer* you have some remarks on clover, and express the wish that "some of your readers would write a good article on the subject." I have experimented with several varieties of clover, and will give the result of my experience in this matter.

The pea-vine or northern clover is a different variety from what is here known as western clover, and the more diminutive southern variety.

A few years since I procured from a brother of mine, residing in Illinois, a bushel of the real simon-pure pea-vine clover seed, a part of which I sowed, and the balance was distributed among a few other farmers. My seed was sown in the spring—a part with spring wheat and a part with oats. The next season I had a prodigious growth of forage—estimated at three tons per acre. It was mown when in the blossom, cured in cock, and was freely eaten by horses, cattle and sheep. They however, if kept upon it for several days in succession, would reject the large stems, causing some waste. To make the most of such coarse forage it should be run through the hay-cutter. This variety of clover, tree-like, sends off from each stem numerous branches or limbs, each producing one or more heads, which I think is not the case with other kinds of clover. It ripens some weeks later than the western, and may be safely left till timothy or herds-grass is fit to cut. There was not much diminution in the amount of clover the third season it was cut. It retains its hold in the ground much longer than any of the other varieties cultivated here. It has a much longer and larger root than the western, giving a much larger yield of forage; therefore it is probably the better kind "for plowing under as a grass crop to enrich the land than the smaller kinds of clover." The only difficulty would be in *turning under* such a crop as mine was. I saved samples which were over five feet in length, and now have some over four and a half feet high tied to a willow stick. I send you a few inches of one of the big stalks, by which you can judge something of its rankness of growth.

The variety of clover preferred by our farmers is known as *western*. This, on good land, grows sufficiently large for forage, and in favorable seasons gives two good crops—the first for fodder, the second for fodder or seed. The large variety gives but a small after-growth; therefore, if seed is wanted, it must be obtained from the first crop.

The southern variety of clover is short and fine, being a capital winter fodder for sheep, milch cows and young cattle; but the yield is light, and our farmers will not sow it, unless they get cheated into

it, as is sometimes the case when they buy it, supposing it to be the western. The next season, however, tells the true story, by the *short* clover and *tall* scolding of the humbugged farmer.

I have experimented somewhat with the Luzerne or French clover, but it takes some three years before the plants get their full growth, and during the time the June and other tough-rooted grasses overpower the Luzerne and it becomes nearly exterminated. The only way it can be successfully grown here is to sow it on land that has been fallowed long enough to cause all seeds of grasses, &c., to be destroyed, and then sow the Luzerne seed and manure with superphosphate, guano, or other manures containing no weed or grass seeds. For soiling and winter fodder it would prove one of the best kinds of plants, if it could be grown entirely separate from other plants that have a tendency to overrun the Luzerne.

I have also experimented with the Alsike or Swedish clover. This seems to be a hybrid, between the common red and white clover or honeysuckle. Several years ago I sowed a few rods of land with this kind of seed. I sowed it too thin, thereby giving room for the growth of other grasses. However, for about three years it did well, but eventually the other grasses nearly rooted it out. The stems are small, yielding a large amount of branches, leaves and blossoms, producing a large amount of honey for bees; and for winter feed for sheep I think no better forage plant can be grown. This kind of clover has been largely grown by some Canadian farmers, and highly spoken of by them.

I have also grown a yellow variety of clover, quite different from any of the foregoing, but not in quantity sufficient to judge correctly of its merits
Warner, N. H., May, 1864. LEVI BARTLETT.

SCOURS IN CALVES.—*Eds. Genesee Farmer*: I have lost more or less calves for several years past from a weakness caused by the diarrhea, or looseness of the bowels, which in a few days would so reduce them that with my utmost skill I was unable to save them. At length I determined to find a cure. After much expense in the trials of many (so said) cures, I found it in the use of the most simple means. I took one-quarter of a pound of the best Rio coffee, (prepared as for table use,) boiled in two quarts of water, and after drenching with one pint at a dose from three to five times, I effected a perfect cure.—JOHN GREER, Newcastle, Pa.

NEVER allow weeds to bloom; it is the worst proof of thoughtlessness. One day devoted this year at the proper time will save a month's application next.

NOTES BY S. W.

THE April *Farmer* is a charming practical repository for both the neophyte and the old stager of the farm. Those "Walks and Talks" are full of interest, from the very fact that they are the condensations of light brought in by daily practice and farm experience.

The discrepance in the nutriment between poor and fat beef, as shown by the analyses of Lawes & Gilbert, although startling, is nevertheless true. I well remember once drying a ham of poor beef until it was reduced in weight more than two-thirds; no wonder, then, that the analysis showed that poor beef contained 50 per cent. water, while fat beef contains less than 25 per cent. It is not the butcher who loses in buying poor beef, but the consumer; for if the butcher buys water, he also sells water! I have sometimes felt that it ought to be an indictable offence for a farmer to sell lean animals to the butcher; for, in the first place, he unwittingly cheats himself by selling off the bone and muscle of his farm just as the fattening process begins to give him all his profits (ask John Johnston); and then, the poor family who buys the meat is cheated in an innutritious article, containing, as it does, 50 per cent. water.

Your advice to farmers in the grain-growing regions, to pay more attention to cheese-making, would be better heeded but for the constant care and hard work which cheese-making imposes on the farmer's family. Even if the milk is taken to a cheese factory, it takes time and labor daily; whereas, the care of sheep is easy, and the shearing is done in a day. As you say, cheese may be profitably made, of the best quality, on a grain farm; but the same can hardly be said of butter—at least, the butter from the grass regions proper has more aroma and brings a better price to take to market.

I should like to have seen your remarks on that miraculous yield of potatoes, on a thoroughly used-up soil, by the aid of twenty-five bushels of bone-dust to the acre; and what was no less astonishing, the same field the next season, without manuring, produced a monstrous crop of rye, the grass seed sown with it giving a good crop of hay the next year! This throws all your pains-taking experiments with the phosphate of lime into the shade. You must try again.

Your recipe, to grease the nails to be driven into hard, dry wood, is capital; after breaking many in the attempt to re-nail boards on seasoned locust posts, I now never fail. I assure you it is comfortable to have posts of your own growing that not only outlast both boards and nails, but give promise to serve several generations to come.

Joseph Wright will plant another large field of

dent corn this season, as it yields him one-third more bushels to the acre than any other variety. Had he been ambitious of taking the State Fair premium for the largest crop, he might have got it every year, and given his competitors twenty bushels, at least. Instead of hauling manure to his fields, he hauls distillery slop and makes the manure on the spot. He has sent off this spring to New York some of the fattest cattle—John Johnston's excepted—that ever went from little Seneca. The first fourteen head sold for \$1,946 in New York—\$139 each, on the average.

Waterloo, April 13th, 1864.

SEEDING WITH FLAX.

EDS. GENESEE FARMER: Mr. John Scott, in the March number of the *Farmer*, page 97, inquires: "Will timothy and clover catch good with flax?" I would say that for some ten or fifteen years past I have had some little experience in the flax business, and so far as timothy is concerned, I have found flax to be a good crop to stock with—much better than oats. My method is to mix the two seeds together, sow broadcast, and harrow or brush in. With me it has always "caught" better than with any other crop except wheat.

I would also state in regard to flax that I have found it to be an excellent plan to plow the ground in the fall or early winter, and sow the seed as soon in April as the ground will permit. I have usually had better crops both of oats and flax than in any other method which I have pursued.

I would further say in regard to flax, that the farmers in this region, for some fifteen years past, have grown flax for the seed only, and have found it to be a profitable crop; but within the last five years there has been quite a drawback on the crop by the appearance of a vine or plant which, for the want of a better name, we call "Pull-down." It is something entirely new with us—never before known in this section. Last year some of our crops were entirely spoiled and others very much injured. The plant entwines itself around the flax, and as far as it extends pulls it to the ground and entirely destroys both flax and the seed, rendering the balance of the seed less valuable in market. Last year I bought a lot of perfectly clean seed, let it to my neighbors and sowed some myself, and so far as I could learn every piece but one was full of it. I am of opinion that it is not produced from a seed of itself, but springs from the root of the flax from some local or atmospheric influence.

Flax in this section is becoming quite an article of domestic manufacture, and all the old spinning-wheels that have lain by for years—some of which have been sold at auction for a few shillings—are now being repaired and brought into use.

The greatest drawback in the cultivation of flax seems to be the want of a flax-puller. Whoever succeeds in bringing such machinery into successful operation makes his fortune.

L. WRIGHT.

Pierpont, Ohio, May, 1864.

REMARKS.—The disease alluded to by our correspondent is undoubtedly the flax dodder, (*Cuscuta epelinum*). It is a parasitic plant, starting from seed in the soil, but soon attaching itself by a worm-like white thread to the young flax. It seizes the live stem by means of a sucker thrown out from the point of contact, and then, twining from left to right, and forming more suckers as it twines, it establishes itself on its victim, and ceases to have any further connection with the soil. From this time it is a true parasite, feeding on the juices of the flax plant.

As it is only an annual, it would be killed if we could prevent its flowering; but this it is almost impossible to do. The only remedy is to plow up the whole crop where dodder appears, and burn it together with the soil. In the *Genesee Farmer* for 1861, page 160, we mentioned a method for destroying dodder, suggested by a French chemist—M. Ponsard. Having learned that dodder contains an enormous quantity of tannic acid, he thought if he could apply something that would neutralize the acid it would destroy the dodder. He watered some Luzerne that was affected with a solution of green vitriol (sulphate of iron), and the effect was all that could be desired. In an hour or two every particle of dodder was destroyed!

INDIAN CORN.

A CORRESPONDENT of the *Prairie Farmer*, after a few remarks on the culture of corn—in which he says that on wet land it should be planted shallow, and just before the plants appear the land should be harrowed to break the crust—waxes eloquent, as follows, on the value of Indian corn:

"With a nominal cost of seed, a range of two months for planting it waits for the sick and the absent—may be harvested almost any time without expensive machinery, is almost indestructible, destroys worthless plants, gives about as much rough feed for all domestic animals, and is unequalled for fattening purposes. The buxom girls and stalwart sons of the West deem it the staff of life when made into bread, and when made into whisky many think it life itself. It supports the poor man's family, the rich man's flask and the merchant's trade. It is the basis of an immense trade in beef, the main pillar of our national prosperity, the golden fleece of America, the staple of the West, the pride of Illinois. From its partial failure last season we more fully appreciate the inestimable value of this splendid gift of the Great Spirit to the Red Man, the jewel of our rich inheritance.

THE CULTURE OF SWEET POTATOES.

J. C. THOMPSON, of Tompkinsville, N. Y., writes as follows in the Report of the Department of Agriculture:

Attempts to raise sweet potatoes have often been defeated by excessive care in preparing the ground, or in not knowing how to preserve them after they are dug. When they are planted in too deep a soil, the tuber runs down too deep, and becomes watery and insipid.

Plants or Slips.—About the first of April put the potatoes in a hot-bed. If they are large, split them lengthwise, laying the flat side down. They may be placed so near as almost to touch each other; then cover about two inches deep with a light, rich compost made of fine sand, manure, and good soil or leaf-mold from the woods. When the sprouts push above the ground add an inch or so of the compost. Water occasionally with warm water; keep the bed warm at night, and on warm days give them air and sunshine, to render them hardy. When ready to set the sprouts may be pulled off, or the potato may be lifted out and the best plants selected, and the potato returned to the hot-bed. A bushel of seed will produce from three to five thousand plants, and every thousand plants which are set should produce forty bushels of potatoes.

Planting the ground.—A warm, sandy loam is best adapted to the culture. Mark spaces three feet apart, merely scratching the ground, for rows, which should run north and south. On the marks spread barn-yard manure with a fork; then turn up the earth with a plow from each side towards the manure, and form a ridge about ten inches high, and finish the ridge with a rake. The base of the ridge, which should be a foot in width, should not be disturbed with the plow. The top of the ridge when finished should be flat, and three or four inches in width.

Plants should be set as soon as all danger from frost is past. I have obtained fair-sized potatoes when planted the 1st day of July, but I do not advise late planting.

Planting on Sod.—Sweet potatoes will grow more chubby when planted on sod than when planted in any other way. Strips of sod eight or ten inches wide may be laid in line on the surface of the ground, with the grass side up, manure strewed on them, and the earth turned up on each side so as to form a ridge, as directed above; or a piece of pasture or meadow may be selected, and the turf used as the base of the ridge to be formed by the plow. In either case manure or rich compost should be used; for, unlike Irish potatoes, these are not injured, but are greatly benefited by manure.

Setting the Plants.—A marker should be used to

prick off the spaces for the plants, sixteen inches apart. A boy is then able to drop the plants in the right places, and the hole is made for setting them. The plant should then be put into the ground down to the first leaf, and the earth pressed gently around it. Care should be taken to set the plants when the ground is moist, and, if possible, on a cloudy day.

After Treatment.—Keep the weeds subdued. Use a hoe or rake, raking upward towards the plants. Where the plants run down the ridges, lift and lay them on the top. Do this several times during the season, in order to permit the sun to act upon the ground.

Gathering and Preserving.—For early use, feel in the ridges, and nip from the stem those that are fit for use, leaving the others to grow. For winter use, after the first frost select a dry, clear day. Cut the vines with a scythe, leaving the stem to which the potatoes are attached three or four inches long, to lift them by. The vines are readily eaten by cattle. Use a fork for raising the potatoes; lift them by the stem, and lay them on the ridge to dry. In a few hours they will be ready to pack. Prepare plenty of dry, cut straw, (old straw is preferable,) and take straw and barrels, or boxes, to the field. Select the best potatoes, handling them carefully, without bruising them. Put a layer of straw at the bottom of the barrel, and then alternate layers of potatoes and straw until it is filled. The potatoes should be placed close to each other, one at a time, and handled as carefully as eggs. The barrels are then to be moved to a dry room or cellar where there will be no frost. If they are placed in a cellar, they must be raised from the floor and must not touch the wall. Keeping warm and dry, is the secret of their preservation. They will keep six or eight months, and improve in quality. From one plot of ground, 30 by 100 feet, I gathered, in October last, 43½ bushels. This is at the rate of 485 bushels per acre.

DASH vs. CRANK CHURNS.

EDS. GENESEE FARMER: "An Inquiring Mind," in the *Farmer* for May, wishes to know why dash churning makes better butter than crank churning. We are unable to answer this scientifically or on scientific principles, but will have to wait until colleges are as plenty for women as for men, before cause and effect, globules and particles can be analyzed, explained and experimented upon by women. But in the meantime we can derive our convictions from observation and practical experience. This, I believe, is the way most of us have to attain knowledge and the truth, which, some how, generally hits nearest right.

The crank churn has too much force inside, or at least those have had that I have seen; consequently the butter is forced too quick, and observation teaches me that butter thus handled soon becomes rancid, and has not at first that sweet taste which is desirable. There may be other causes of which I am not aware.—M. S. B.

CORN FODDER FOR CATTLE.

EDS. GENESEE FARMER: I have had considerable experience in feeding corn fodder on a farm where we kept seven head of horses and twenty head of cattle. I cut the stalks with a two-horse railroad power machine, cutting from three hundred to six hundred bushels at a time. I had a large trough, say ten feet long, three feet wide and two feet deep, into which I put the cut fodder, and then put over it some corn-chop—corn chopped, cob and all. This I mixed and fed out to the stock, and in this way I fed out all the stalks raised on about twenty-five acres, a quantity of hay and soft corn. We had eleven head of steers for beeves, which we got in September, and in April they were scarcely fit to kill. We kept them until July, feeding and pasturing alternately, when we sold them for little if any more than they cost, having only the manure for what feed they consumed and the time and trouble of feeding them.

This, Mr. Editor, you may think was a losing game—at least not a very profitable one. The reader may suggest that there was something wrong. This I admit. I believe in cutting corn fodder for cattle; but it should be fed only while it is in good condition—in other words, before it gets all dried up, say until about the first of February, for I believe that when they are perfectly dried so that there is no substance in them, the cattle do not only refuse to eat them as well, but what they do eat scours them and thus injures their health; therefore I would prefer topped fodder to that cut up by the roots, and if fed while green it is as good as the best timothy hay. Feed in the fore part of winter, and save the hay until spring. Do not have it chopped in the ear—cobs and all. This I know to be injurious. Some people do not believe this, and I have heard of people buying cobs to have them crushed and then mix them for feed. This is on a par with the man who made stone soup. As the story runs, a traveler got out of money and hard pressed for something to eat. He stopped at a house with a stone in his hand which he had picked up, and said he would show the inmates how to make stone soup if they would let him have an iron pot. This was given him, when he asked for a small piece of meat. This was also supplied him. He then wanted some cabbage and a few small potatoes. After getting all of these he made a good repast on his stone soup, but would have done just as well without the stone. So with corn cobs. If you put enough of something else with them, you may have a pretty good mess, but it would be just as good without the cobs—at least this is my experience.

Now as to stabling and outdoor feeding. If you wish to fatten, put up your cattle in a good warm

stable; keep it well ventilated and not too dark; keep it well cleaned; bed your cattle well, and give them plenty of water; then, with a little attention and judgment, you will soon learn how much they will eat. This is necessary in order to feed economically and yet with good effect. One reason why our cattle did not do better, or why I did not succeed better, I attribute to the fact that our steers were kept in the barn-yard all winter, fed out fodder in a trough at one end of the yard, all loose, and they would chase and gore each other so that some got more than their share, and others less. Their loose feed was scattered on the ground or on the dung pile, and trampled under foot.

Perhaps the reader can see what was wrong and be inclined to ask, Why did you not remedy this evil? Well, I will tell you. I was employed by a man who is not a practical farmer, and yet would not allow me to use my discretion and benefit by my experience. He owned the farm, and insisted upon directing all the operations thereon. In the end he paid dearly for his "experiment," as he called it; and surely it was "experiment" with a grief; for he kept his steers much longer than his neighbors, fed them a great deal more, lost one by over-feeding, and sold them all at an advance of only three-quarters of a cent on the pound! I think I hear some good farmer—some experienced cattle feeder—say, "Served him right—he might have had better luck."

But why do men undertake to farm who actually know nothing about it—why say they can not? I learn from a book. What are all the treatise and essays on farming for if we can not profit by them? This is very plausible, but experience is the best teacher, as faith without works is dead, being alone; so theory without practice is insufficient, being alone. If a practical farmer reads and reflects in his daily practice, he will have a good help in his arduous operations. As Abraham's faith wrought with his work, so a farmer's theory or book learning will be perfected by his practice.

I have given you some of my experience and suggestions, and hope they will not be entirely lost upon others.

D. W. SAMPSEL.

Northumberland, Pa., May, 1864.

AGRICULTURAL IMPROVEMENTS.—Since the days of Sir John Sinclair—the esteemed friend and correspondent of Washington, and one of the great men of the earth—no science has received more general attention than that of agriculture. This at least is particularly true with respect to the past twenty-five years' agricultural experience of our own country. When we look back over that space of years, and contemplate the many improvements in farming which have been made, we have great reason to congratulate our farmers for the spirit, intelligence and good sense which they have exhibited.

WATERING STOCK.

A CORRESPONDENT of the *Boston Cultivator* alludes as follows to the different methods of watering cattle in winter:

1. Driving them to a brook. This mode of watering was found to be attended with loss. It was ascertained that it required too much time, and caused too great a loss of manure, which would be dropped on the way.

2. Drawing water from a well with a bucket. This was found to be something of an improvement over the previous way; yet this was a slow process for watering a large herd of cattle, especially in stormy or very cold weather, for in such weather they would not be so much inclined to drink. In the spring of the year the water would be so brackish that the cattle would go all day without drinking. This was not according to nature, for they needed water to nourish their systems, and give moisture to their food that it might be more easily digested. In this case the cattle had to suffer, and their owner was the loser.

Again, in place of the bucket a chain pump was used, to see if this would not do the required work at a less expense of labor; but this was found to be no better.

Finally, a spring was looked for, which was found at the distance of 65 rods from the barn, with 15 feet fall. This spring was dug to the depth of six feet, that a greater supply of water might be obtained; after stoning, there was a trench dug, 2½ feet deep by 1½ wide for the pipe, this being half an inch in diameter. The total expense of getting the water to the barn was \$52, or 80 cents per rod.

This pipe was laid ten years ago the present season, and all the expense that it has required to keep it in order is only 50 cents; and it has always furnished abundance of water for a large herd of cattle at all seasons of the year.

Often we see the watering trough under the shed, or in some other place where the cattle like to stand. If the person who has charge of the stock is not careful, there will be some of the younger animals which will not get an opportunity to drink as often as necessary, consequently I consider it best to have the trough in the most remote part of the yard, as by so doing the cattle will drink, and then walk away to see if they can not find some more suitable place to stand or lay down. In this way all get what water they require without any extra labor from the person who has charge of the stock. I consider that running water at the barn well pays the interest of a thousand dollars annually.

FOOT-ROT IN SHEEP.—The application of double-distilled vinegar and corrosive sublimate is said to be a remedy for foot-rot in sheep.

SHORT SERMONS FOR FARMERS—No. 6.

WRITTEN FOR THE GENESEE FARMER.

AND he said, So is the kingdom of God, as if a man should cast seed into the ground; and should sleep, and rise night and day, and the seed should spring and grow up, he knoweth not how. For the earth bringeth forth fruit of herself; first the blade, then the ear, after that the full corn in the ear. But when the fruit is brought forth, immediately he putteth in the sickle, because the harvest is come.—MARK 4: 26-29.

THE parables are the most difficult parts of scripture to interpret. They have, by specious, but false interpretations, been more frequently pressed into the service of error than any other portion of scripture, except prophecy. They are not designed to be the first source of doctrine, but to illustrate and enforce the truth which is, in other parts of scripture, revealed in a more formal manner. It is a sound principle of interpretation, applicable alike to all writings, that the meaning of figurative language must be ascertained by that which is literal. Errorists, of all ages, who have been unable to bring the literal to their aid, have resorted to the figurative, because of its greater susceptibility of perversion. The principle of interpretation already stated is so important to guide us in our endeavors to understand the scriptures and to fortify us against the arts of errorists, that no pains should be spared to fix it in our minds and in the minds of our children. Bible class and Sabbath school teachers should understand it, especially since Christian parents throw the responsibility of the religious instruction of their children upon them. The literal is ever to control the doctrinal interpretation of the figurative. We are not to go to the figurative as the first source of doctrinal teaching. A departure from this principle will involve us in false interpretation. It will give errorists scope to propagate false doctrine with apparent sanction of the Word. By departure from this principle the parable of the Unmerciful Servant may be used to sustain the doctrine that there is no necessity, in the economy of grace, of the interposition of a mediator between God and man. The king in the parable pardoned his servant on his own petition, and not on account of any satisfaction made or any mediator intervening. Hence it might be inferred, that in the same way, and without requiring sacrifice or intercessor, God pardons sinners simply on the ground of their penitent prayers. Upon the same principle of interpretation the parable of the sower may be made to teach the doctrine, against the express and literal declarations of scripture, that all men are not naturally totally depraved. A portion of the seed fell upon good ground and brought forth fruit; therefore, some men are by nature, and without the special grace of God, fitted to bring forth fruit unto holiness. There are illustrations of a mode of interpreting parables which has been a fruitful source of error. It proceeds upon the prin-

ciple that parables are an original source of doctrine instead of illustrations of truth communicated in literal form in other parts of scripture.

The parable in the text may with perfect consistency refer either to the origin and progress of christianity in the world, or to the establishment, growth and perfection of the grace of God in the soul of individual believers. The kingdom of God, as used in the scriptures, sometimes has reference to one, sometimes to the other, and what is said of it in the parable is in other portions of scripture applied to both.

The origin of christianity and the origin of personal godliness are both divine. This is explicitly affirmed as well as necessarily inferred from the revealed fact of the natural alienation of man from God. With reference to the origin of christianity it is said: "Him being delivered by the determinate counsel and fore-knowledge of God, ye have taken and by wicked hands have crucified and slain. This Jesus hath God raised up; therefore being by the right hand of God exalted, and having received of the Father the promise of the Holy Ghost he hath shed forth this, which ye now see and hear. God, who at sundry times and in divers manners spake in time past unto the fathers by the prophets, hath in these last days spoken unto us by his Son, whom he hath appointed heir of all things." It is clear from these passages that christianity has a divine origin. It is of God. The same is the origin of the kingdom of God within us. "Whom he did foreknow he also did predestinate to be conformed to the image of his Son. I follow after, if that I may apprehend that for which also I am apprehended of Christ Jesus. Being born again, not of corruptible seed, but of incorruptible, by the word of God which liveth and abideth forever." It is not true, therefore, that while God is the author of christianity in a general sense, man is the author of his own participation of the grace of the gospel. He is born of God. But this is done by human instrumentality. It is as if a man should cast seed into the ground. If God had seen fit, he could have revealed the truth immediately to each individual without the intervention of any human instrumentality. But he has adopted another plan. He has committed the seed to prophets, apostles and disciples to be by them cast abroad through all the world. His plan renders it necessary that a class of men shall be set apart to sow the seed of the kingdom. Hence the apostle, speaking of those who are ignorant of the gospel, says: "How shall they call on him in whom they have not believed? how shall they believe in him of whom they have not heard, and how shall they hear without a preacher?"

In view of this divine plan with reference to the

sowing of the seed of the kingdom, the apostle gives this charge to Timothy: "And the things which thou has heard of me among many witnesses, the same commit them to faithful men, who shall be able to teach others also." The things which the apostle taught and which he here charges Timothy to commit to faithful men to teach, were, as he says, "the things that are freely given us of God, which things he spake, not in the words which man's wisdom teacheth, but which the Holy Ghost teacheth." The illustration of man's casting seed into the ground may therefore be applied to those who, under Christ, are teachers in the church.

But my limits in the *Farmer* admonish me to postpone the remaining part of this subject until next month.

A NEW METHOD OF PLANTING CORN.

MR. Z. BREED, of Weare, N. H., states in the *New England Farmer* that he has raised corn planted in the following manner for three years, and that the result has been so favorable that he can confidently recommend it to his brother farmers:

"After my ground is well prepared by manuring, plowing and harrowing, I drill it one way with a small plow. Into this drill I put whatever of compost or manure is intended for the hill, and mix it thoroughly with the soil with an instrument made by attaching two or three of Share's harrow teeth to a joist four inches square and four feet long, with handles at one end and a hitching place at the other. After this operation the corn is strewn all along the drill at the rate of four to six kernels to the foot. A plow if then used to cover the whole, in soil tolerably free from stones.

"When the corn is up sufficiently to see the rows, the same little plow is run on either side of it, turning a furrow from the corn. In a week or so a cultivator is run through and the soil is again leveled. When it gets up a little too big for the crows, and the worms have got their share, with a dextrous use of the hoe it is thinned to about eight inches, and left standing in as straight a row as possible. When ten or twelve inches high the same little plow is used to turn a furrow against either side of the corn. With a little practice the weeds may be nearly all covered and destroyed. I have actually raised a good crop of corn and not used the hoe at all, and at harvest one could not find three bushels of weeds to the acre."

HOW TO HAVE NO WEEDS TO PULL.—Stir the ground often, and they will never get big enough to pull. A loose top soil can be stirred up a half-dozen times with a hoe in the time required to go over it once in the pulling process. The growth of all plants will also be greatly promoted by stirring the soil often.

LIST
OF SOME OF THE PRINCIPAL
AGRICULTURAL IMPLEMENT MAKERS
In the United States and Canada.

[Prepared expressly for the Genesee Farmer.]

NEW YORK.

- L. & P. K. Dederick, Hay Presses, Albany.
- * WHEELER, MELICK & Co., Horse Powers, &c. United States Mower,
- I. T. Grant & Son,
- Hallenbeck & Cunningham,
- M. Alden & Son, Steel Plows, Horse Hoos,
- Burtis & Beardsley, "Cayuga Chief" Mower & Reaper,
- A. R. Reynolds & Sons, Sections for Mowers & Reapers,
- Abel Runyan, Fanning Mills and Grain Separators,
- D. M. Osborne & Co., Kirby's Mower and Reaper,
- Dodge, Stevenson & Co.,
- Wheeler & Morgan,
- J. W. Skinner & Co., Brasher Iron Works,
- Seymour, Morgan & Allen,
- Silliman, Brother & Co., Hubbard's combined Reaper and Mower, and Jacob Strayer's Paten Grain Drill,
- Shapley, Hopkins & Robins,
- Isaiah S. Matthews, Plows, Cultivators, &c.,
- M. Baker & Son,
- Brayley & Pitts, Threshing Machines,
- R. L. Howard,
- Buffalo Ag. Machine Works, Kirby's Mower and Reaper,
- R. & M. HARDER,
- Albert Lampert,
- S. Moore & Co.,
- Phillip H. Rose,
- Johnson & Co.,
- S. M. Moore,
- G. Sweet & Co., Buckeye Mower and Reaper,
- S. J. Sayles, Clover Threshers, Hullers, Plows, &c.,
- Wm. B. Dunning,
- George Hovey, Hay Cutters,
- L. & C. L. Perrigo, Horse Powers, &c.,
- George Lyon & Son,
- Walter A. Wood & Co.,
- Chas. H. Prentiss,
- Gifford Bros.,
- * REMINGTONS & CO.,
- Duryee & Co.,
- James S. Cook,
- Charles Oyston, Cheese Presses,
- C. C. Whittelsey,
- Russell & Tremain, Screw Power Mowers and Reapers,
- John P. Adriance, Buckeye Mower & Reaper,
- John T. Morrell,
- * JOHN VANDERBILT,
- Grant, Goodwin & Co.,
- E. H. Allen & Co.,
- A. E. Allen,
- * S. C. HERRING, Hay Tedder,
- Griffing Bros. & Co.,
- Buflus Dutton,
- * HAINES & PELL,
- H. Thompson & Co.,
- Anson Titus & Son, Plows,
- Adriance, Platt & Co.,
- Birdsall & Son, Reapers and Mowers,
- A. F. Whittaker, Plows and Threshers,
- Wm. Parsons, Plows and Cultivators,
- W. T. Davis & Co., Mowing Machines,
- Fisher & Ling,
- * D. C. ALLING, Grovers' Patent Swing Beam Plow,
- Rochester Agricultural Works, Pitts & Brayley,
- Ebenezer E. Sill, Ag. Caldron and Steamer,
- Henry Belden,
- Joseph Hall,
- Willis & Hutchins, Grain Separators,
- D. A. Woodbury & Co.,
- Wm. H. Doxtater,
- A. Ethridge & Co., Farming Tools,
- Henry W. Pell, Horsepowers, Farming Tools, &c.,
- C. Bradley & Son, Reapers and Mowers,
- C. & A. Brown, Seed Drills,
- David Crow & Co.,
- J. D. Watkins & Co.,
- * G. WESTINGHOUSE & CO., Lever and Endless Chain Horse Powers, Threshers and Cleaners, Threshers and Separators, Clover Machines, Wood Sawing Machines,
- Samuel H. Brainerd, Agent,
- Nutting & Co.,
- Starbuck Bros., Plows,
- Lawrence & Gould, Threshers,

Clark Tompkins.....Troy.
 J. H. Chapman, Whiffletres and Yokes.....Utica.
 Dana & Company.....
 Childs & Woodford, Buckeye Mowers.....
 F. Fanning, Plows, &c.....Union.
 Z. Newcomb, Plows.....Waterloo.
 Wm. D. Burrall.....
 H. & E. F. Cooper.....Watertown.
 J. & J. G. Lovel & Co.....
 Geo. P. York, Buckeye Mower and Reaper.....Westfield.

ILLINOIS.

Darlings & Prosser.....Chicago.
 Louis B. Kelley.....
 C. H. McCormick & Bro.....
 Vaughan & Co.....
 Brown & Co.....
 Thomas B. Bryan.....
 Furst & Bradley.....
 Rickards' Manufacturing Co.....
 Barber, Hawley & Co.....Decatur.
 P. Manny.....Freeport.
 J. P. Frost & Co. (Hay Presses).....Galesburg.
 Gilbert & Hamilton.....Kewanee.
 J. F. & W. L. Black.....Lancaster.
 C. H. Deere, Plows.....Moline.
 Candy & Swan.....
 Hemingway, Wykoff & Co.....
 D. Y. Hughes.....Newtown.
 Selby, Elder & Co.....Peoria.
 Wm. Toby & Co.....
 Buford, Tate & Co.....Rock Island.
 Thompson & Co.....
 Talbot & Emerson.....Rockford.
 Galt, Tracy & Co.....Sterling.

OHIO.

Shadrach Dial.....Amelia.
 Osborn Durham & Co., Plows.....Bedford.
 Darnor & Nolte.....Cleveland.
 Younglove, Dewitt & Co.....
 Clark Sorgho Machine Co., Cane Mills and Sowing Machines.....Cincinnati.
 C. Aultman & Co., Buckeye Mower and Reaper.....Canton.
 E. Ball & Co.....
 J. B. Pitts & Co.....Dayton.
 Pritz & Kuhns.....
 Bomberger, Wight & Co.....
 Kneisly & Mesberry.....
 J. Aughe.....
 Russell & Co., Threshing Machines.....Mansfield.
 BLYMYERS, BATES & DAY, Sugar Evaporators.....
 ROE & BLAIR, Cheese Vats and Dairying Apparatus, Madison Hall & Co.....
 Whitley, Fassler & Co., Reapers and Mowers.....Springfield.
 Warder & Child.....
 Tabers & Co., (Mowers and Reapers).....Salem.

PENNSYLVANIA.

Blood & Co., Tools.....Athens.
 David Heebner.....Fairview.
 EAGLE WORKS, W. O. HICKOK.....Harrisburgh.
 T. H. Willson & Co.....
 H. K. Parson.....
 Morton & Dorwart.....Lancaster.
 Samuel Keeler.....
 H. K. Storrer.....
 Frederic Gilbert.....Morristown.
 Sayre & Bros.....Montrose.
 Blaker Millard & Co.....Newtown.
 John Hall & Co.....Pittsburgh.
 Beckham & Long.....
 W. L. BOYER & BRO.....Philadelphia.
 Bavery & Co., (Plows, &c.).....
 David Landreth & Son.....
 R. Bulst & Son.....
 Rogers & Gest.....
 D. M. Osborne & Co., Kirby's Mower and Reaper.....
 George Laidley.....Westchester.

IOWA.

C. Crum, Plows.....Davenport.
 W. D. Ament, Plows, &c.....Muscatine.
 L. & J. McGrear, Plows, &c.....
 J. Kleinfelden & Co., Plows, &c.....
 J. J. Bider.....Wilton Junction.

MISSOURI.

Runder, Roenig & Co.....St. Louis.
 Plant & Bro.....
 Barnum, Fenner & Co.....
 Kinglands & Ferguson.....

MICHIGAN.

Farmers' Warehouse.....Battle Creek.
 Binnhams & Co.....
 J. S. Upton & Co.....

WISCONSIN.

E. W. Skinner & Co.....Madison.
 C. Comstock.....Milwaukee.

MARYLAND.

Whitman & Sons.....Baltimore.
 R. Sinclair, jr., & Co.....
 Brewster & Griffith.....
 Thomas Norris.....
 F. Ray.....

MASSACHUSETTS.

Parker, Gannett & Osgood.....Boston.
 Oliver Ames & Sons.....
 J. Nourse.....
 Wittemore, Belcher & Co.....
 J. Montgomery & Bro., (Grain Fans).....
 J. Breck & Son.....
 Burbank, Chase & Co.....Lowell.
 Bowers & Jenks.....Milford.
 Alzims Brown, Manny Mower and Reaper.....Worcester.
 Union Mowing Machine Co., Union Mower.....
 Buckeye M. M. Co., Buckeye Mower.....

MAINE.

S. S. Brooks.....Augusta.
 Kendall & Whitney.....Portland.

RHODE ISLAND.

Burdick & Barrett.....Providence

VERMONT.

A. W. Gray & Son.....Middletown.
 W. C. Smith.....St. Albans.

NEW HAMPSHIRE.

Ward, Humphrey & Co.....Concord.

CALIFORNIA.

Arthur & Sons.....San Francisco.
 Hawley & Co.....
 Treadwell & Co.....

CANADA.

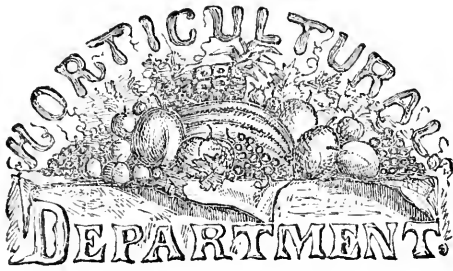
R. & S. Patterson.....Belville.
 McPherson, Glasgow & Co.....Fingall.
 L. & P. Sawyer.....Hamilton.
 J. & S. Moxon.....Ingersoll.
 Joseph Hall.....Oshawa.
 Messrs. Patterson.....Richmond Hill.

* See advertisement.

HILLING INDIAN CORN.

A CORRESPONDENT of the *Germantown Telegraph*, speaking of the practice of hilling corn, says: "Constructing large, conical hills, on land which is light and dry, must inevitably tend to increase the effects of drouth, inasmuch as it exposes more surface to the atmosphere, and consequently increases aërication at times when all the moisture contained in the soil is required for the support and sustenance of the plants. When rain falls, the conical hill conducts the water from the roots to the center of space between the rows and hills, very little of the fluid being retained about the plants, or within range of the small roots, by which the *pabulum* is taken up by the growing plants, and without which they would immediately languish and decay. On light soils hilling is always disadvantageous to the crop. Every fresh stratum of earth placed over the roots causes a protrusion of a new set of laterals, to the detriment of those previously formed. This exhausts the energy of the plant, without increasing, in any great degree, its powers of appropriating food from the surrounding soil, as the first-formed roots cease to grow as soon as those caused by the deposition of new soil are developed, and in a short time will be found to have lost their vitality and become mere worthless appendages."

ALL grain crops should be harvested before the grain is thoroughly ripe.



GARDEN WORK FOR JUNE.

Most garden vegetables are now planted and growing, and the great work of the summer months is to keep them growing as rapidly as possible, and at the proper season, to gather such as are ready for use.

To promote the rapid growth of vegetation, nothing is more efficacious than the frequent stirring of the soil. The gardener can better afford to dispense with manure than with the hoe. In fact, viewed in one light, weeds are the gardener's real friend, inasmuch as they *compel* him to keep the hoe in motion.

With a deep, mellow, underdrained or naturally drained soil, and the *hoe*, the *digging fork* and the *cultivator* we can almost defy the severest drouth. The most profitable season I ever experienced as a market gardener was the driest one I ever knew. While vegetables in neglected gardens dried up, creating a good demand, by keeping the *agitators* of the soil at work, I realized fair crops.

Asparagus.—It is well to cease cutting asparagus by the middle of June; otherwise you may weaken the roots too much. In preparing it for the table, the blanched portions of the stalk, if used, should be peeled, or they will be tough.

Beets.—The Long Blood may be sown for winter use, and the early sown may be thinned out and used for greens.

Cabbage and Cauliflower.—May be transplanted the early part of the month for fall, and the latter part for winter use. The *early* varieties may still be sown, and transplanted next month into plots from which early peas, lettuce and radishes have been removed.

Carrots.—Sow early in the month the Long Orange or Long White, and in the latter part the Early Horn.

Celery.—May yet be sown for winter crop. Those plants pricked out of the hot-bed last month should be planted in trenches the latter part of June, four feet apart and one deep, made very rich and mellow.

Sweet Corn.—Plant until the middle for succession. Hoe the early planted well, cutting up the

weeds, stirring the entire surface, but not making much of a hill.

Cucumbers.—May be planted any time during the month for pickles.

Egg Plant.—Transplant early in the month, and if sunny, shade for a day or two and water.

Melons. It is too late to plant melons, but hurry forward those planted last month, by means of the hoe. Liquid manure may be applied to most plants with good results. The hoe should be used soon after. Water saturated with any concentrated manure, such as droppings of the hen, the hog, or guano is called liquid manure.

Okra.—May be planted the very first, and that planted last month thinned.

Peas.—Sow early sorts for late summer use and for seed, as the bugs will not infest the late sown. After the middle the early varieties should be fit for the table. Do not pick them until the pods are filled, and do not tear the vines, as they generally admit of two or three pickings.

Parsnips.—May still be sown early in the month. A deep, mellow soil is essential to produce long, straight roots, free from branches.

Sweet Potatoes.—The first half of June is the proper season for transplanting the plants of sweet potato. They are very sensitive to cold, therefore should not be put out until all danger from cold winds, as well as from frost, is past. A light, dry, sandy soil is requisite to produce dry, fine-flavored tubers. If to be planted in hills, mark out the ground three feet each way, put a fork full of stable manure to each hill, and raise a hill twelve or fifteen inches, with a flat top, on which set a plant. The ground should be left *hard* under the hill, to make short, thick potatoes. If to be planted in drills, throw up ridges three feet apart, first scattering manure along the marks pretty freely. Eighteen inches is the proper distance to set the plants on ridges. The Nansmond is the only reliable variety to cultivate at the north.

Radishes.—Sow for summer use Long White Naples, White Summer Turnip, Yellow do. do., and Grey do. do.

Rhubarb.—If you have a surplus, it can be cut up and bottled or canned for winter use. Allow no stalks to go to seed.

Squash.—The late varieties may be planted the very first of the month.

Tomatoes.—Good, strong plants may yet be transplanted. Hoe frequently, drawing a little dirt to the plants every time to support them.

Small Fruits.—In the month of June we begin to realize the luxury of some of the small fruits. The others will require a little more care and attention before they yield up their delicious treasures.

Currants.—Will begin to ripen the latter part of

the month. They should be gathered as soon as ripe for jelly, but are better for eating and table use when dead ripe. In the meantime give them an occasional hoeing and cut out all superfluous shoots.

Raspberries and Blackberries—Will show a disposition to throw up numerous shoots. Leave half a dozen of the strongest canes for next year's crop, and treat the rest as weeds, unless required for new plantations.

Gooseberries—Will be benefitted by mulching.

Grapes.—Pinch out superfluous shoots, and tie up such as you wish to grow. A cane kept tied up in a perpendicular position will grow much faster than in a horizontal one.

Strawberries.—Now is the time for participation in this most delicious of small fruits. Give the vines a last hoeing, and when they commence ripening, mulch them with cut straw, tan-bark, or any kind of litter. This will keep the berries clean and the ground moist, and so prolong the bearing season. If mulched earlier it will retard their ripening.

R.

FRUIT CULTURE IN THE WEST.—NO. 2.

WRITTEN FOR THE GENESEE FARMER BY D. C. SCOFIELD.

SAID a fruit-grower of long and tried experience once to me, "The markets can never be well supplied with pears." This was rather prophetic, and thus far has proved too true. The heavy loam and clayey soil of the timber lands of the prairie world, as well as the subsoil, is as well adapted to the growth of the pear tree as any soil on the continent; and the failures have usually been from causes other than the soil. That the pear tree needs protection from the sweeping prairie winds, is no more a fact than that the apple tree needs it. On the open prairie, by the side of my apple orchard, stands my pear orchard, of thirty varieties, which has not suffered half as much as the former. My land, though naturally dry, I underdrained to the depth of three feet, using the subsoil for a compost with the surface soil, in which to plant the tree. A part of the ground I prepared by digging a hole four or five feet wide and two or three feet deep, and then boring with a post auger three feet deeper to the gravel, filling the latter with cobble stones or nursery brush, thus completely underdraining every tree, filling the large hole with a compost of the subsoil and surface, with a reasonable quantity from the manure compost heap. Nothing but rabbits and blight has disturbed them. To protect the bodies of the trees from rabbits and the "bark blight," (by frost or sun, or both, or neither,) I tie around the tree in the fall rye or other straw, threshed with a flail.

The pear tree requires *stronger* feed than the apple;—hence, from the piggery or hennery the best

fertilizers are obtained, which, when the tree commences bearing fruit, should be annually applied, as in the case of the apple. In the absence of these, any other farm manures may be used. Poor, indeed, will be the success, and grand, indeed, will be the failure, if this part is neglected.

I once knew two pear trees which stood in an open field and grew moderately for nearly thirty years, as their history had it, without bearing a single pear. At length the occupant placed his buildings so that the trees received the "wash" from them. The result was, as he (J. T. Hammond) told me, that he received from the sales fifty dollars a year for fourteen consecutive years. Rather profitable trees.

The pear, like the apple tree, should be pruned when young, and ever after continued, never leaving a limb to grow the second year that should ever be removed. Henry Ward Beecher tells of a pear tree in Illinois, about ten miles from Vincennes, Indiana, that bore 184 bushels in 1834, and 140 bushels in 1840, of large sized pears. One foot above the ground it measures ten feet in circumference, and nine feet above, six and one-half feet, and its branches spread over a space sixty nine feet in diameter. It is said to be about fifty years old. Other pear trees, in New York and vicinity, now live which are over one hundred years old, and of extraordinary productiveness. Although these are exceptions, yet they are evidences of the great value of the pear tree under favorable circumstances. But while we secure such longevity and productiveness to one tree, we may lose a hundred.

I think the method of Mr. Barry, of Rochester, N. Y., a good one: in *all* cases where a pear tree fails he immediately plants another in its place.

Leaf blight is an enemy as destructive to pear trees as the yellow fever is to the human family. When it attacks trees, no matter of what variety, *death* is the immediate consequence to all that part touched by it. The leaves die as if scorched by fire, the branches are withered, dead and rotting, the fruit withers, and the destruction is complete and without any known remedy. Prof. Turner, of Jacksonville, Ill., says it is caused by a very small insect, invisible to the naked eye, "so small that a million of them may walk abreast on the edge of a razor." Quite small, indeed. If an insect, it sweeps along unseen in the atmosphere, and where it touches it destroys. The "insect theory" is the most rational, for if it were the common atmospheric influence, then the entire tree would in all cases suffer at the same time, which is not always or often the case. Often a single limb will be attacked and all the rest of the tree remain untouched. Again, a single tree in the midst of others of the same variety will be partially or wholly destroyed, and the rest remain

unharméd. Such was the case in my orchard last summer, (1863,) in the midst of my most hardy varieties, among which was the Flemish Beauty. "One would be taken and the other left." Yet we say, with Mr. Barry, to every man who loses a pear tree, to plant another in its place; or, if he has none, to plant them at once. No man should be so indifferent to the blessings that Divine Providence has placed within his reach as to neglect to provide it for himself and family, and for generations following him.

Cherry Culture in the west has met with sad reverses. Most of the varieties of the heart cherries have proved a failure north of the latitude of 40°, and we have learned to cultivate such varieties as do succeed well, which are of the Duke and Morello families. Though not so sweet and delicious, yet they answer to the "roll call" every time. The Early Richmond, for an early cherry, stands at the head of the list. These are as hardy as any of the family, producing crops from very young trees, and very abundantly.

Four or five varieties form a succession of this fruit from June till August or September, and are cultivated with less trouble and risk than any of the tree fruits.

The soil for the cherry should be similar to that for the pear—namely, a strong mixture of loam with the surface prairie soil. The surface of the ground should be kept clear from all vegetation, and when practicable, where the poultry or pigs may destroy every living vegetable, and also all insects that sting the fruit and therefore render it valueless. All may have abundance of fruit who will take the trouble to plant trees.

The cultivation of *Plums* in the West has not met with the success that could be desired. In a country where such a great variety of native plums abound, it was very natural to suppose that the cultivated plum would flourish in proportion. But this is not the case. Success is the *exception*, not the rule. So general is the failure, that the Doctors of *Tree-ology* are not able to furnish an antidote. Where success is had it is generally on the loamy or clayey soils. As the native plum tree generally succeeds when transplanted, it will be well to transplant and graft them with the improved varieties. The properties derived from the application of salt to the soil near the tree has proved very beneficial in the cultivation of the plum at the East, and we do not see why it may not prove valuable on our prairie soil. With the use of it two years on our trees we have derived no benefit.

The *Quince* is nearly a failure in the West north of the latitude of Peoria. Those who desire to raise it should prepare for it some protected location in a rich, moist place, where vegetation can be entirely subdued by some artificial covering of the soil.

Peaches can not be successfully raised north of Joliet, yet occasionally we find them as far north as Wisconsin. Last year (1863) was favorable for the peach crop where there were trees, and had the country been well supplied with trees doubtless there would have been a good supply of this fruit. Yet its successful cultivation must of necessity be confined, with few exceptions, to a latitude farther south. Egypt or South Pass, in the southern part of this State, has become noted in all the fruit world for its peculiar adaptation to fruit-growing, especially to the production of peaches. There is a small region of country of high hills and bluffs, through a notch of which the Illinois Central Railroad passes, which thereby derives the name of "South Pass." These high lands are covered with a growth of timber, and are elevated above the frosts that so commonly invade the low land of the prairie country, and the woodland and bluffs afford protection from the western gales. Here, doubtless, is to be the great central fruit region of the West. It is said that the markets of Cincinnati and St. Louis are supplied with strawberries two weeks earlier from this point than from their own vicinity.

Apricots and *Nectarines* must necessarily find a place south of the latitude of Central Illinois.

The *Grape* is doubtless destined to occupy an important place in the pomology of the West. Along the rivers and protected localities, the Isabella, and even the Catawba, arrive at considerable perfection. But the new, early, and hardy varieties find a home here. The deep, rich soil of the prairie country affords an abundant supply of nutritious qualities adapted to the grape. The Hartford Prolific and Delaware are doubtless to take the lead; next, the Concord, Diana, &c. While we would encourage the cultivation of this fine fruit, we would by no means desire that so much of it should be grown as to entail the curse that has fallen upon some of the vine-growing and wine-producing countries of Europe.

To prepare a border for vines, the same preparation of soil should be made that is required for the pear. Nothing pays better than the expense of preparing for the grape-vine. Where drainage can be had, I would excavate a place six feet in diameter and four or five deep, and fill it (after throwing in a few bushels of bones) with a rich compost, and then plant the grapes. Perhaps no fruit-bearing vine or tree endures longer or produces more than the grape, with proper training. It is said that a vine now stands by the old Tower of London that has stood there for centuries. Its roots have found their way among the old ruins of former ages, and it produces a ton of grapes annually, which at ten cents per lb. would amount to \$200.

The smaller fruits are produced in great abun-

dance here. The *Strawberry*, especially Wilson's Albany, has been introduced, and has become a leading fruit. As yet no variety has equaled it in productiveness or value as a market berry. Under a good cultivation it produces more than two hundred bushels per acre, and always finds a ready market. An expert picker will pick ten quarts per hour. The plants should be set in rows, three feet apart one way and eight to twelve inches the other. The ground requires a deep, rich culture, and to be kept clean. Hooker's Seedling and some other varieties should be planted for family use.

The *Raspberry* and *Lauton Blackberry* require a mixture of loam with the prairie soil, and the plot on which they stand to be kept clean and thoroughly covered with mulch, so that the surface of the ground will not become dry, and then immense crops are secured.

All these varieties and kinds of fruit should have a slight winter protection; the strawberry by a slight covering of corn-stalks, and the others by bending them down and covering with straw or stalks.

The *Currant* in all its varieties is alike valuable East and West; but as an early bearing fruit in a country newly settled, is of immense value, as it never fails to produce a crop of fruit which supplies the place of all other fruits, and is a very good substitute, and conducive to health. It should be in rows, three feet each way, and receive a clear culture and annual manuring. The most productive and most valuable varieties are the Red and White Dutch.

The *Gooseberry* is also valuable here, the Houghton Seedling being the only really valuable variety. It should be supported by trellis-work, so that it may not lie on the ground, to which it has a natural tendency. No fruit bears earlier or more abundantly.

Having thus presented to you a brief view of the present state of *Fruit Culture in the West*, with suggestions relative to the soil and mode of cultivation, if it should advance the fruit-growing interests of the West as well as of the East, we shall feel abundantly remunerated for our labor.

Elgin, Ill., May, 1864.

"PRUNING IN JUNE" is recommended by an experienced correspondent of the *Genesee Farmer*. Give it a trial. We intend to do so. The general opinion is that pruning at this season *weakens* the tree. If you have vigorous growing trees that are inclined to make too much wood, pruning at this season, by checking their growth, will have a tendency to throw them into bearing. Northern Spy trees, which, as a general rule, are very tardy in coming into bearing, might, if they are in a vigorous condition, be pruned at this season to advantage.

JUNE THE TIME TO PRUNE FRUIT TREES—No. 3.

WHY SHOULD WE PRUNE?—In considering this question, we should remember that fruit and fruit trees have been brought to their present state of excellence by constant care and culture; that few, if any, of our best fruits were at first of much value. It is said that the peach, the most excellent of all, was only a bitter almond. The apple, when allowed to grow wild, has seldom produced good fruit. *Culture* has changed them to what they now are; culture and care have refined their nature, and this same culture and care should have no intermission, if we would attain success.

The knife—the pruning hook—has been a potent instrument in the hands of man in bringing about this refinement, and it becomes us to know *when* and *how* to use it.

Trees are of different habits. Some are inclined to grow to wood, and their tops present a thick mass of limbs, with very little fruit, and that of an inferior quality. Such should be thinned out and cut back in order to reduce their wood buds and throw the strength which tends to them into fruit buds. Others are too erect or upright in their habits, and may need cutting back to give them a more spreading head. Others are not well balanced, which fault may be corrected by pruning. There are other reasons *why* to prune; but they may more properly be considered under the head—

HOW TO PRUNE.—The tree, as it comes from the nursery, should be pretty much robbed of its top, in order to retain an equilibrium between its power to furnish and its demand for nutriment—which power was necessarily impaired in transplanting.

The pruning should not be all made from the bottom upward, but the top must be cut back, so as to commence the formation of the head not higher than your shoulders. Three or four main limbs, on opposite sides, should be left as the foundation for the head of the tree. If more are left let them be taken out the next summer, in June. All limbs should be cut back at least one-half, and every cut should be commenced on the opposite side from the bud (even with its point) which you desire to continue as the prolongation of the limb. This bud then becomes the terminal bud. The knife should be drawn with a little slant upward, coming out a little above the bud. The terminal bud, as a general rule, should be on the outward side of the limb.

The tree will now need but little pruning until the third season, when you can begin to calculate upon the form it is inclined to take. If one side is disposed to outgrow the other and is heavier, thin it out and cut back rather close, while you cut back the other lightly. If disposed to be too upright, cut them back heavily, bend and fasten them more hor-

horizontally, making an incision lengthwise on the upper side. *Calculate whether the limbs will be too thick together when they come to be large, and remove them while small.* Let this rule be constantly borne in mind and applied to practice, year after year, and you will avoid the necessity and the injury of cutting off large limbs.

Allow no surplus wood to grow, and no sap sprouts, to rob the fruit of that nourishment which it needs. Make the top open, so that the sun may penetrate.

Crossed limbs and those that interfere must be cut out; also, thorny, scrubby and dormant limbs. Let your tree be so open that the limbs will not whip together and chafe by the wind. Use a fine saw, or some instrument that will cut smooth. Do not use an axe or a hatchet.

Every limb has a joint—if I may be allowed so to call it—an enlargement where it joins another. At the smallest point just above this take it off smooth and clean; do not allow it to mar and tear down the bark.

Prune at any time after the middle of May until the last of August. *Prune in June* and you will be satisfied that it is the best time.

Pierpont, Ohio, May, 1864.

E. D. WRIGHT.

PLANTING, PRUNING AND TRAINING THE PEACH.

EDS. GENESEE FARMER: The most important things in relation to a tree for planting, are: first, its vitality; and, second, its symmetry;—for if dead or dying, it is, of course, worthless; and if the trunk is not in good proportion, it can not sustain the requisite amount of branches to produce a maximum crop of fruit. If the branches are too much on one side the sap can not flow evenly; and if left to itself, the deformity increases with its growth, and it becomes, not only unsightly, but more liable to destruction from storms.

The best shape for all fruit trees is doubtless the pyramidal. The length, size and weight, then, of each limb is in proportion to the size of the main stem at its base, and there will be no forks liable to split the tree when loaded with fruit. Pear and cherry trees take this form naturally; peach, apple and plum not so readily; but these latter, with a little judicious care, while young, may be made to take this form very nearly. The peach, being of rapid growth, needs the most constant care for the first two seasons after planting, and I will take it for a text and give you my ideas of its pruning and training.

The peach, like the grape and some other of the small fruits, but unlike most trees, *bears fruit only on the shoots of the last season's growth*, and the tendency of its sap is strongly to the extremities; consequently, when left to itself, the fruit is left at too

great a distance from the base of the limbs for the branch (with its very brittle wood) to sustain a good crop of fruit, especially after a few years of bearing. Unlike most other trees, too, it puts out no secondary branches, except from the present or last season's growth.

These facts explain why this tree is so often broken down, and should be constantly borne in mind in pruning and training. Peach trees for planting should be at two years' growth from the pit, and one year from the bud. If they have been raised on a deep, dry, sandy soil, the roots will be very symmetrical, and of the pyramidal form reversed. In this case, I cut off the tap root to six or eight inches, in order to increase the lateral roots. Having been usually raised in crowded nursery rows, the stem is very apt to be in the form of a bow, slender, and the branches sparse and weak. The most judicious pruning that the tree can have at planting is to *cut off every limb at its base and shorten in the top to a length in proportion to its diameter at the root*, taking care not to cut the limb so close as to injure the bud at its base. The tree will then throw up a strong leader from each terminal bud, and plenty of lateral branches, from which you can make your selection for the future skeleton of the tree. It now having plenty of room, the branches will be more stocky, and of more uniform size; and if any one is taking more than its share of sap, it is readily seen, and can be stopped by nipping at any time during the summer.

Another peculiarity of the peach should also be borne in mind at planting. It is more sensitive to the influence of the winds than most trees, and the winds of summer being mainly from the west, you will find that in the Northern States—and perhaps more particularly in this State—that the tops of the trees point to the east; the limbs are longer and more depressed on the east side, with a constant tendency of the tree to lose its balance. To counteract this tendency, at planting I set the tree with the top pointing to the west; in the summer pinching I am careful to keep back the east branches; and in the spring pruning, "which should be done when the buds first swell," says Barry, I cut the east limbs to an upper bud, the west ones to an under, and the north and south ones to a west bud—bearing in mind another peculiarity of this tree, which is, to throw its branches at a more nearly right angle with the stem at its base than most other trees. Having in mind these peculiarities and tendencies, the advantages of spring shortening-in will be readily seen, as it makes the limbs more steady, the tree takes up less room, is more perfect in its shape, the branches are more upright and less in the way of cultivation, the weight of the fruit is

nearer the trunk, and I have good authority for saying that it trebles the length of its life, increases the amount, size and flavor of the fruit, and protects it as well from injury by the winter storms.

The second summer the same system of pinching the rampant branches, and the same shortening-in the next spring should be followed. You then have the foundation for your tree, and may then decide whether to continue the operation annually thereafter. The labor will be increased with the increased size of the tree; but if it bears well, which you may hope it will, the third or fourth season after planting, if the climate and season be favorable, you will not grudge the increased labor. If you follow this system of shortening-in you will find too many limbs coming out of the main stem. True, the surplus ones will die out of themselves, but not always the ones you would choose to spare. It is better at the spring pruning to cut out so as to keep the head open and preserve the symmetry of the tree.

S. B. P.

Muskegon, Mich., May, 1864.

HORTICULTURAL ITEMS.

Prepared for the *Genesee Farmer*.

THE gooseberry and currant caterpillars are again on our currant bushes, and unless checked will soon strip off the entire foliage. They begin at the bottom of the bush, and seem to prefer the leaves on the young suckers. If attended to in time, the removal of these suckers would destroy hundreds of caterpillars and the little beet-like eggs which may be found neatly glued on the under side of the leaves. The removal of the suckers, too, and of all branches that are not bearing fruit, will strengthen the bush and give us larger fruit, by throwing a greater supply of sap into the fruit-bearing branches. The remedy which we have for several years recommended in the *Genesee Farmer* will be found effectual if faithfully applied. This is simply to dust the bushes with *hellebore* powder, which may be obtained at any respectable drug store. Half a pound, costing not more than fifty cents, will be sufficient for a large number of bushes. As soon as the hellebore touches the caterpillars they curl up and drop from the tree. The plan we have adopted is, to first syringe the branches with a decoction of tobacco and soap-suds, and while wet to dust on the hellebore from a common dredging box. Lime, if repeatedly applied, throwing it as much as possible on the under side of the leaves while the dew is on in the morning will greatly check the ravages of these pests. It is not too late to attend to this matter now, as there are two or three broods in the course of the season.

WHALE OIL SOAP is a sovereign remedy for the

rose bug. Put half a pound in a pail of boiling hot water and stir it till it is dissolved. Pour this into two or three pails of soft water and syringe the bushes with it. You will in a few days be astonished at the glossy and healthy appearance of the leaves, and will be abundantly rewarded for the slight trouble and expense. Tobacco water—or better still, if you have any means of confining it around the bushes, tobacco smoke—will destroy the aphides which suck out the juices from the leaves of roses at this season of the year. They are a great nuisance unless attended to, but are easily destroyed. If you have not tobacco, try soap suds.

THE "PEAR BLIGHT" continues its ravages, especially in this section and parts of the Western States. In New England, and in the eastern counties of this State and New Jersey, it is seldom seen. We still think that the cause of this disease is a fungus generated in the soil, from old decaying roots, chip manure, &c. There is no remedy except to avoid planting on soils where trees have been grown, and where the old roots are still in the soil.

If not already attended to, it is not yet too late to mulch strawberries. The clippings of the lawn, or grass of any kind, makes an excellent mulch for this purpose. It checks evaporation from the soil, checks the growth of weeds, and keeps the fruit clean. Cut off the runners and throw the whole sap into the fruit.

THE long-legged, spindling tomato plants so freely offered for sale in the city, must be poor things to plant. They look large now, but a small stocky plant, that has been transplanted once or twice, and is finally removed with a good ball of earth round the roots, will produce earlier and better fruit. The same is true of cabbage, cauliflowers, celery, &c. If you want good plants, let them be pricked out while young from the seed-bed into a nice warm border, in rows three or four inches apart each way, and when they are well-rooted and are strong, stocky plants, give the ground a *thorough* watering, and then remove each plant with a ball of moist earth round it, and they will not miss the moving. They will be earlier and better than much larger plants set out without previous transplanting. It also affords an opportunity of throwing aside any that may be attacked by grubs at the roots. A good place to plant early cabbage and cauliflowers is between the rows of peas. The peas, if poled, afford some protection from the hot sun.

USEFULNESS OF MOWING WEEDS.—In the month of June weeds are in their most succulent state; and in this state, especially after they have lain a few hours to wither, hungry cattle will eat greedily almost every species. There is scarcely a hedge, border or nook, but at this season is valuable; and it must certainly be good management to embrace this opportunity, for shortly they will become nuisances.

Ladies' Department.

ECONOMY.

THESE are stirring times. Ruin stares us in the face, and our great Republic lies bleeding at every pore. But if we all conclude to strengthen instead of weaken her in this great affliction, she will survive gloriously. Upon women the practice of this economy necessarily devolves; and this must be done by strict economy in family affairs.

Women, too apt to consider their own weakness, look with amazement at the Alpine events with which they are surrounded, and content themselves with sewing for the Sanitary Commission or Freedmen's Association. This is well. But there is another duty at every woman's door, and that is economy. Do not say, "Look at ———. In spite of the war they have their balls, their music, dancing and dress—their fine furniture, fancy horses and carriages." Nero fiddled while Rome was burning. Our land is being wasted and drained of her resources by a desolating war, and shall we, by trifling, make those resources less? Besides, as in the Revolutionary days, they were suspected of disloyalty who were filled with British gold; so may we not suspect those are none too loyal who are thus squandering our nation's honor—our nation's waning wealth. Then let economy be the watchword of our republican principles, and let us remember that we are truly serving our country when we economise carefully and persistently in our personal and household expenditures.

A thousand things and ways before unthought of will these stirring times bring to light. Alter that old dress, and it will be as good as new; and we shall hear no more of "nothing to wear," of nothing to do. Never mind the extra feather or flower while yonder hospitals are filled with maimed youths and the groans of the dying. Leave them until the sighs of the sorrowing and heart-broken are echoed back no more in our land. Transform your old things into new, if you can; if not, yonder lies the crouching, naked contraband. Over and over again has our house submitted to a "raid" for them, thinking surely now there is nothing more—but another bundle comes! And as Bridget in the kitchen has been warned to save the pieces, she exclaims: "And it ain't the like of ye that will be after eating them." "We will see to-morrow," I reply. To-morrow comes. "Well, Bridget," how is the meat pie, and the custard pudding?" "Oh! bootiful, marm."

A strange fancy such people have. They deem none but the wasteful can be the aristocracy. Is it education, or what is it, in our poor, that renders them so deficient in tact, or "looking ahead," as the phrase is?

One of a benevolent committee, in New York city, states that an aged woman, who was, as she said, very poor, but who, somehow, could find enough tobacco these hard times to keep herself enveloped in smoke, applied for assistance. It was granted; and on calling upon her a short time afterwards to see how she got

along, she was found eating breakfast, surrounded with a multiplicity of good things, including both tea and coffee, although there was none but herself—thinking, she said, she would have *one* good meal!

Who can calculate the results of a lifetime had this woman been economical! Many are the ways and incalculable the value of economy in the household—that province where woman reigns, and where she thus has it in her power to administer an economical government of such vast importance to homes, and through them to our country. The avenues of waste are many and wide, and waste assuredly brings want. Then let us, in these days of darkness, "with scarce a silver lining," study more the science of economy, and thus reap the benefits of this season of adversity.

Aurora, N. Y., May, 1864.

M. S. B.

ORIGINAL DOMESTIC RECEIPTS.

Contributed to the Genesee Farmer.

MUFFINS.—One quart of milk, three eggs beaten separately and very light, one-half teaspoonful of salt, flour enough to make it a little thicker than ordinary batter, butter the size of an egg, and one heaping teaspoonful of soda and three of cream-tartar.

COTTAGE PUDDING.—One-half cup of butter, one-quarter cup of sugar or none at all, one egg, one pint of flour, one cup of sweet milk, one spoonful of soda, two spoonfuls of cream-tartar. If sour milk is used, use only soda. Bake and eat with sauce.

LEMON PIE.—Grate one lemon, using only part of the rind, three eggs beat separately, one cup of sugar, a piece of butter as large as an egg; add the whites of the eggs and a teacup of milk when ready to go into the oven. Bake in a crust.

TO MAKE CREAM PAN CAKES.—Take the yolks of two eggs, mix them with half a pint of good cream, two ounces of sugar; rub your pan with lard, and fry them as thin as possible; grate sugar over them, and serve them up hot.

PUDDING SAUCE.—One-half cup of sugar, two cups of butter, rubbed together very thoroughly. Wine or brandy to your taste, put in drop by drop. Warm it in a tin set in boiling water until it froths, without stirring.

OMELET.—Four eggs, a tablespoonful of flour, a cup of milk, pepper and salt and a little butter. Pour into a spider or any small iron dish. Put it into the oven and cover it with a tin cover or with a plate.

WHITE CAKE.—The whites of twelve eggs, five cups of flour, one cup of butter, three cups of sugar, one cup of sweet milk, one teaspoonful of soda, two teaspoonfuls of cream tartar.

COOKIES.—One cup of sugar, one-half cup of butter, two eggs, one-half teaspoonful of soda put into a tablespoonful of sour milk, caraway seed, and flour enough to roll it out.

Miscellaneous.

LITTLE BY LITTLE.

One step and then another,
And the longest walk is ended;
One stitch and then another,
And the largest rent is mended;
One brick upon another,
And the highest wall is made;
One flake upon another,
And the deepest snow is laid,

So the little coral workers,
By their slow but constant motion,
Have built those pretty islands
In the distant dark blue ocean;
And the noblest undertakings
Man's wisdom hath conceived
By oft-repeated efforts
Have been patiently achieved.

It is odd to consider what great geniuses are sometimes thrown away upon trifles. "I once saw a shepherd," says a famous Italian author, "who used to divert himself in his solitudes with tossing up eggs and catching them again without breaking them; in which he had arrived to so great a degree of perfection that he would keep up four at a time for several minutes together playing in the air and falling into his hand by turns. I think," says the author, "I never saw a greater severity than in this man's face; for by his wonderful perseverance and application he had contracted the seriousness and gravity of a privy-counselor; and I could not but reflect with myself that the same assiduity and attention, had they been rightly applied, might have made him a greater mathematician than Archimedes.

THE PROFESSOR'S TEA CADDY.—A learned Cambridge professor finding that his college bed-maker was continually abstracting his tea, and being aware of what weight of evidence some females can resist, he determined to let her know he had found her peccadillo out without the chance of contradiction. He bought two pounds of tea, placing one in his caddy, and secreting the other in a drawer; he drew from the latter store so much as was necessary for use, but never touched the former. The contents of the caddy decreased daily and in greater proportion, and at last, while he had still a little left, Mrs. Brown declared his tea to be out. "Well," exclaimed the professor, producing his remnant in great triumph, "I declare, Mrs. Brown, your pound has not lasted so long as mine has!"

THE celebrated Dr. Radcliffe could not look upon tradesmen's bills without a sense of keen suffering. Even a poor pavior who had been employed to do a job to the stones before the doctor's house in Bloomsbury Square could not get his money without a contest. "You rascal," cried the doctor as he alighted from his chariot, "do you pretend to be paid for such a piece of work? Why, you have spoiled my pavement and then covered it over with earth to hide the bad work." "Doctor," said the old man, drily, "mine is not the only bad work the earth hides." "Eh, what, so you're a wit, are you?" said the doctor. "Then you must be paid."

A QUAKER'S ADVICE TO MONEY HUNTERS.—A prudent and well-disposed member of the "Society of Friends" once gave the following friendly advice: "John," said he, "I hear thou art going to get married." "Yes," replied John, "I am." "Well," replied the man of drab, "I have one little piece of advice to give thee, and that is, never marry a woman worth more than thou art. When I married my wife, I was worth just fifty shillings, and she was worth sixty-two; and whenever any difference has occurred between us since, she has always thrown up the odd shillings."

THE hat was passed around in a certain congregation for the purpose of taking up a collection. After it had made the circuit of the church it was handed to the minister, who, by the way, had exchanged pulpits with the regular preacher, and he found not a penny in it. He inverted the hat over the pulpit cushion and shook it, that its emptiness might be known, then raising his eyes toward the ceiling, he exclaimed, with great fervor, "I thank God that I got back my hat from this congregation."

A LITTLE BOY not yet three years old, said with much earnestness: "I wish I could see God." His mother, quite charmed with such evidence of early piety in her child, said: "My dear, what would you say to God if you could see him?" Said he, "I would ask him to *unmake the rats!*"

THOUGH a man has all other perfections and wants *discretion*, he will be of no great consequence in the world; but if he has this single talent in perfection and but a common share of others, he may do what he pleases in his particular station of life.

I HAVE been often puzzled to assign a cause why women should have the talent of ready utterance in so much greater perfection than men. Hudebras says that the tongue is like a race-horse, which runs the faster the lesser weight it carries.

A YOUNG MAN who had been invited out to dine and had partaken *very* freely of watermelon for dessert, was accosted by one of his friends with—"Well, Sam, how do you feel?" "Why," said he, "I feel as though I was a *freshet*."

To ascertain the specific gravity of a metal you must weigh it in water; to ascertain that of a man you must make the experiment with wine.

THE bellman of Watertown, announcing a temperance meeting, said it would be addressed by six women who had *never spoken before*.

FORREST LEAVES.—With the forest leaf as with the Christian, the glory of its coming is eclipsed by the glory of its departure.

ARTEMUS WARD says experience is an excellent schoolmaster, but does charge dreadful wages.



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For twenty-four subscribers we will send, prepaid by return mail, a copy of Emerson & Flint's excellent work, *The Manual of Agriculture*.

All who subscribe before the July number is issued, will receive a copy of the June number without extra charge, or seven months for the half year.

We want five thousand new subscribers to the half volume. Our friends can get us twenty thousand with little trouble if each one would spend a few hours in canvassing. We are doing our best to make a good, reliable agricultural journal, and if our present subscribers would recommend it to their neighbors we should receive five thousand additional readers in one week. Shall we have them? Do not wait for each other, or for our old agents. We should be glad if every reader of the FARMER would consent to act as agent in getting subscribers. Let us see who responds first.

An Excellent Appointment.

SANFORD HOWARD has received and accepted the appointment of Secretary to the Michigan Board of Agriculture and Agricultural College. We congratulate the farmers of Michigan. There is no better man in the United States for the post—none for *any* post where a knowledge of agriculture in all its varied branches is required, united with practical experience and extensive observation.

Mr. Howard was for some years a farmer in Ohio, where he wrote occasionally for the Agricultural Press, and his articles were so well received that he was called from the farm to occupy the editorial chair of the Albany *Cultivator*, then, as now, one of the leading agricultural journals of the country. He remained at Albany for several years, when he returned to his native State of Massachusetts to take charge of the Boston *Cultivator*. He has been connected with the Agricultural Press for over twenty years, has twice visited Europe, is editor of the *Devon Herd Book*, and thoroughly acquainted with the history of all the improved breeds of horses, cattle, sheep, &c., in the United States. He can not fail to render great service to the cause of agricultural improvement at the West.

We observe, from a report in the Boston *Journal*,

that the Massachusetts Agricultural Club a few days since entertained Mr. Howard at a public dinner, and presented him with a massive silver pitcher as a token of their appreciation of his services for the improvement of agriculture and respect for his character.

Death of Distinguished Agriculturists.

WE are pained to record the death of several distinguished agriculturists within the last few weeks:

EDWARD G. FAILE, ex-President of the State Agricultural Society, and well known throughout the country as a breeder of Devon cattle, died at his residence, at West Farms, Westchester Co., N. Y., April 30th, in the 66th year of his age. There were few men more honored and beloved. Quiet and unostentatious in his manners, a diligent student of nature, it was his delight, though an eminently successful business man, to spend his time in the peaceful avocations of agriculture, and esteemed it his highest honor to be a Christian man and a farmer.

CHARLES B. CALVERT, President of the Maryland Agricultural College, died at his residence, at Riversdale, May 12th. He was a large and successful farmer, prominent in every agricultural improvement, and his loss will be severely felt, not only in his own State, but throughout the whole country.

Rev. C. E. GOODRICH, of Utica, N. Y., well known for his experiments on potatoes, and for the number of excellent seedlings he has produced, died at Utica, May 11th, aged 62 years. At the last annual meeting of the State Agricultural Society a fund was raised from gentlemen then present for the purpose of presenting him a testimonial of their esteem and a token of their appreciation of his labors for the improvement of one of our important crops. He has not lived long to enjoy it, but it is a pleasure to know that it soothed his last days.

Dr. EVA PUGH, President of the Pennsylvania Agricultural College, has also been taken from us, and left us to mourn his early death. Like many other distinguished scientific men, he was from the humbler walks of life—having been originally a blacksmith. He devoted all his spare time and earnings to the improvement of his mind. He was at length enabled to go to Europe to complete his chemical studies. After he had spent some time in several of the most celebrated laboratories on the Continent, he spent two years with Mr. Lawes on his experimental farm at Rothamsted, engaged in investigations in regard to the absorption of atmospheric nitrogen by plants. Returning to this country he was elected President of the Agricultural College of his native State, and soon gave it a character possessed by no similar institution in this country. He was a man of unbounded energy and perseverance, and thoroughly acquainted with the science and practice of agriculture. His loss is irreparable.

Agricultural Fairs.

WE should feel obliged to the Secretaries of the various Agricultural Societies in the United States and Canadas if they would inform us at what time their next Fairs are to be held. We wish to publish as complete a list as possible.

Inquiries and Answers.

WOULD unleached ashes and hen manure do to mix with superphosphate for turnips, carrots, &c., or corn, or would they be better applied without mixing with the latter?—CANADA WEST.

The superphosphate would not injure the hen manure or ashes, but the ashes might injure the superphosphate if mixed for sometime before sowing. You will find by mixing ashes with superphosphate (if it is a good article), that considerable heat is produced—the result of chemical decomposition.

Superphosphate of lime is made by adding sulphuric acid to bones. The phosphate of lime in bones is nearly insoluble in water. It is composed of one atom of phosphoric acid and three atoms of lime. When sulphuric acid is added, it unites with two atoms of the lime, forming sulphate of lime or plaster, and the remaining atom of lime is united with the atom of phosphoric acid, forming an acid phosphate of lime which is quite soluble in water. Now if potash is added to the mixture, portions of the phosphoric acid leaves the lime and forms phosphate of potash. The phosphate of lime then in the mixture is the same as in the original bones, though from its fine comminution a little more soluble. On the whole, however, we should prefer not to mix the ashes with the superphosphate unless to save labor in their application.

BUTTER-WORKER—AGAIN.—I am very much obliged to you and your correspondent for sending me the hand-bill of the "Keystone Butter-Worker." I am sure Mr. Reed has good butter in his dairy, and so is interested in having others as successful. If my dairy was large enough, I should not hesitate to purchase one on such disinterested recommendation, but I have only five cows. I presume you will think, after this confession, that I do not need a butter-worker at all; but I find there is enough to do with the aid of all the labor-saving machines that have ever been invented. If some one would tell me of a smaller one, I should be glad to get it. I am quite out of the world, and do not know where to order such a thing.—E. R. P.

If any of our readers can help this good lady to get such a butter-worker as she needs we should esteem it a favor. One of our correspondents, Mr. Reed, wrote us recommending the "Keystone Butter-Worker," manufactured by P. G. Woodard, of Waterford, Erie county, Penn. We sent his letter to "E. R. P.," and the above is her reply. She thinks the "Keystone Butter-Worker" is intended for a large dairy. Mr. Woodard writes us that he will send a circular, gratis, describing his machine to "E. R. P.," or to any of our readers who will write for one. We think, from the description, that it is well calculated to effect the object.

WHEN is the best time to sow plaster—which month and what time in the month? I have never used any except on corn. I have been told that in the morning, when the dew is on, is the best time in the day.—P. SHAFER, *Salamanca, N. Y.*

On clover, sow at any time from March until June. Some think it is better sown early and some late. On the whole, we think it is better to sow it early in the spring, but would much prefer to sow it later than not at all. Scientific men differ greatly in regard to the action of plaster. Some think it acts on the leaves, and

if so it would be better to sow it rather later in the spring—and also, as you suggest, when the dew is on or the clover is wet. For corn, potatoes and beans, the usual practice is to drop the plaster on the hills before the first hoeing.

I SHOULD be glad if you or some of your correspondents would give directions how to breed fish and raise them in a pond? I have a large spring so situated that I think I could make a pond with little trouble. Also, how to sprout cedar seeds.—SAMUEL ALLEY, *Pleasant Ridge, Mo.*

How much nutriment is there in corn fodder, stalks and leaves? Will it pay to cut them up and feed them with other food?—G. B. G., *Louisville, Ky.*

Speak a Good Word for the Farmer.

MR. P. SHAFER, of Salamanca, N. Y., who gets us up a good club of subscribers, writes: "I have not been able to get out among my neighbors. I have only mentioned the matter in my own house, and shown a copy of the neat little *Farmer*, and almost invariably he has taken fast hold on the affections of my visitor. The only question asked is, "Do you think it is worthy?" "Most certainly," I answer, and that is enough.

We should be glad if all our friends would "show a copy of the paper" to their neighbors who do not take it, and ask them to subscribe for the forthcoming half volume, which commences with the next number. In clubs, the subscription price for the half year is only twenty-five cents! There are few neighborhoods where a club of eight could not be formed with little trouble. Will our friends see what they can do for us the present month?

The Markets.

OFFICE OF THE GENESEE FARMER, }
ROCHESTER, N. Y., May 25, 1864. }

At our last report, Gold was at 50 3/4 cent. premium. Since then it fell to 65 per cent. Notwithstanding our successes in Virginia, however, Gold has again advanced to 122 1/2. One reason assigned for this advance is the continued issue of interest-bearing Legal Tender Notes. Another reason is the fact that the Bank of England has advanced its rates of interest to 9 3/4 cent.; and as some four hundred millions of our securities are held in England, it is thought that owing to the stringency in the British money market a large amount of American securities will be sent home for redemption. Our foreign creditors, too, will be more pressing in their demands, and hence it is thought that a large amount of Gold and Sterling Exchange will be required for the next few weeks. The speculators have taken advantage of this state of facts, and have been buying largely in anticipation of an advance in Gold.

Our exports continue very light, while there is no falling off in our imports. A society of influential ladies has been formed who pledge themselves not to wear anything of foreign manufacture "for three years or during the war." It is thought that this movement, if successful, will check importations and lessen the demand for Gold.

The following table shows the total export of Breadstuffs from all ports in the United States to Great Britain, and Ireland from September 1, 1863, to March 13, 1864, and during the same period in 1861, 1862 and 1863:

	Flour, bbls.	Wheat, bush.	Corn, bush.
1861.....	1,367,708	17,152,275	8,014,901
1862.....	1,178,393	14,476,316	10,374,103
1863.....	1,030,048	16,797,194	7,994,293
1864.....	\$20,109	9,880,217	240,220

These figures speak for themselves. In addition to the demands of the Army, large numbers of men have flocked to the cities to engage in mercantile pursuits, and there can be little doubt that the effect on agricultural pro-

ductions will be seriously felt the coming season. It is to some extent already apparent, as the above figures indicate.

The Wool market is quiet, but very firm. There is a very light supply in the hands of manufacturers, and should Gold maintain its present premium there is every probability that Wool will rule high the coming season. Assuming 40 cents $\frac{3}{4}$ lb as a fair average paid in *Gold*, we ought now to get 72 cents (100:180::40:72). This is entirely aside from the increased demand for army purposes and on account of the scarcity of cotton. Taking these into consideration, and the additional tariff on woolen goods, it is not improbable that fine Wool will reach one dollar $\frac{3}{4}$ lb before next spring.

Grain of all kinds has advanced. Good Potatoes in this city are worth \$2.75 $\frac{3}{4}$ barrel. They bring from \$2.50 to \$3.50 in New York, according to quality. Beans are in demand at \$2.50 to \$3.00.

Butter is higher. California shippers have paid as high as 42 cents $\frac{3}{4}$ lb for select firkins. As the quality improves, there will be a greater demand for export to England, and the price of all good Butter will be regulated by the premium on Gold. It will sell for Gold in California and Europe. As long as 25 cents in Gold is worth 45 cents in Currency, Butter will not be very low!

NEW YORK CATTLE MARKET.—Beef Cattle were higher in New York last week than ever before known—and this notwithstanding the unusually large supply. Extra prime Cattle brought over 18 cents $\frac{3}{4}$ lb for the estimated weight of Beef. In other words, an Ox weighing alive 18 cwt., would bring, estimating it to dress 60 per cent. of Beef \$190!

The New York papers are urging their readers to abstain from Beef for two or three weeks, and see if this would not bring the drovers and butchers to their senses.

Sheep are also higher. Good lots of unshorn Sheep bring 12 $\frac{3}{4}$ c. $\frac{3}{4}$ lb live weight. Good shorn Sheep bring 9c. $\frac{3}{4}$ lb, and the butchers can not obtain a full supply even at these high rates. Mutton sold last week as high as 16 to 18c. $\frac{3}{4}$ lb.

Hogs have advanced nearly 1c. $\frac{3}{4}$ lb. They are quoted at 8 to 9c. $\frac{3}{4}$ lb live weight, or 10 $\frac{3}{4}$ c. dead weight.

Milk Cows are in great demand *everywhere*. Farmers wisely prefer to keep them to make Butter and Cheese rather than sell them even at present high prices. The *Tribune* says: "It is a poor cow that will not bring \$50, while fair milkers command \$60 @70 each, and extra Cows of large size \$80@90 each. Good fat Calves bring from 9@10c. $\frac{3}{4}$ lb live weight. Even 'Bobs' sell for \$2.50 to \$3.00 each."

These are high prices. Let us strain every nerve to increase the products of our farms the coming season.

Special Notices.

Bradley's XL Superphosphate of Lime.

We present the following testimonials of the value of Bradley's XL Superphosphate of Lime:

Boston, May 2, 1863.

WILLIAM L. BRADLEY, Esq. *Dear Sir:* You ask my opinion, as derived from my chemical analysis, of your XL Superphosphate, and, from my knowledge of the science of agriculture, as to the value of this Super-phosphate as a fertilizer.

No one who knows any thing of the science, can doubt that such an article will prove of great value, and that it is adapted to supply the most essential substances removed from the soil by our usual crops, and that it supplies these articles to the soil which are sparingly found in it in its natural state. I would also observe, that beside this the Superphosphate, containing, as it necessarily does, free phosphoric acid, reacts on the soil, and renders substances in it, before unavailable on account of their insolubility, soluble, and therefore absorbable by the rootlets of plants. Thus magnesian minerals, and those containing potash, will be made to render up a portion of their magnesia, and alkali, and carbonates of lime, and of magnesia, will deliver up a portion of their carbonic acid freely to the soil and to the plants. These reactions are much more extensive in soils than is generally supposed, and will vary in different soils.

Respectfully, your obedient servant,

CHARLES T. JACKSON, M. D., State Assayer.

SUFFIELD, CONN., Oct. 7, 1863.

W. L. BRADLEY, Esq. *Dear Sir:* In 1862 we introduced the sale of Phosphate in this town as the first general agent, and sold eight tons. The present year, 1863, we sold 46,825 pounds, as follows:

"Coe's" net,.....	22,878
XL, net,.....	24,452
	46,825

Besides that which was drawn here from Hartford and Springfield, and purchased at our suggestion. We have also sold considerable since our early spring sales as before enumerated, for fall use, and the sale daily grows.

Wherever your XL was used, so far as we can ascertain, without an exception, every farmer is highly pleased and satisfied; it is just the thing. Where the XL was used side by side of other Superphosphates, or of fish guano, the former won the crop and distanced its competitor fairly and handsomely. Where the XL was used without any manure, the crop of tobacco has shown itself very heavy, and exceedingly fine, and has awoken a new and decided interest for its future use.

We could fill pages of its operation, and make some startling statements.

A piece of tobacco set late in July, and with no special hopes of doing well, the owner spread the XL Phosphate on the surface and put it in the hill, and yesterday told us that it exceeded any thing he ever saw, was far ahead of the piece where he had used plenty of manure, at a far heavier cost, and the tobacco was ready to cut and hang some eight days ahead of his other pieces where manure was used.

Mr. Thomas Archer, who never used any of the artificial fertilizers before this year, is more than satisfied, and is now ready to use double the quantity another year.

Mr. Lillie, very practical in all his workings, tried this year all kinds, and gives it as his opinion that the XL can't be beat. When asked his opinion of the different Phosphates, he most decidedly gives the preference to the XL.

There is no use of adding or saying more, for it is established in this quarter. So long as the quality of the Phosphate is kept up to its standard, nothing can interfere with its use and sale.

Yours, respectfully,

LOOMIS & CO.

For further particulars, address W. L. BRADLEY, No. 24 Broad street, Boston, Mass.

Fruit Growers' Society of Western New YORK.—The Summer Meeting of the Fruit Growers' Society of Western New York will be held at the Court House in the city of Rochester, on WEDNESDAY, the 23d day of June.—Session to commence at 11 o'clock in the forenoon.

Members, and all interested in the culture of Fruit, are invited to be present and to bring with them specimens of fruit in season for exhibition. JAS. VICK, Secretary.

Rochester, N. Y., May 21, 1864.

Fortunate Combination.—We are opposed to proprietary medicines, and it is with some compunction that we see advertisements of them in our columns. Still we must confess that Brown's Trochee are convenient and useful, in certain conditions of the throat and larynx, before speaking.—*New York Christian Advocate.*

Send for a Circular of Grover's Patent Swing-BEAM PLOW. See advertisement in May number of the Farmer. D. C. ALLING, Rochester, N. Y.

ADVERTISEMENTS.

\$2 MADE FROM 20 CENTS!—Call and examine. $\frac{1}{2}$ or ten samples sent free by mail for 20 cents. Retail for \$3 by R. L. WOLCOTT, 170 Chatham Square, N. Y. my64-ly

\$80 PER MONTH!—AGENTS WANTED IN EVERY TOWN. It is something new and of real value. For particulars address, with stamp, my2* J. S. PARDEE, Binghamton, N. Y.

**SAPONIFIER,
OR CONCENTRATED LYE
FAMILY SOAP MAKER.**

WAR makes high prices; Saponifier helps to reduce them. It makes **Soap for Four** cents a pound by using your kitchen grease.

CAUTION! As spurious Lyes are offered also, be careful and only buy the **Patented** article put up in **Iron cans**, all others being **Counterfeits**.

PENNSYLVANIA SALT MANUFACTURING CO.,
Philadelphia—No. 127 Walnut Street.

ja Pittsburg—Pitt Street and Duquesne Way ct

Turnip Seed! Turnip Seed!

J. M. THORBURN & CO.,
15 John Street, New York,

Offer of the finest and purest stocks,

Early White Dutch Turnip, lb	\$.75
Red Top Strap Leaf Turnip, lb	.75
White Flat Strap Leaf Turnip, lb	.75
Large White Globe Turnip, lb	.75
Large White Norfolk Turnip, lb	.75
White Cow Horn Turnip, lb	.75
New Long Pure White Turnip, lb	.75
Long White French Turnip, lb	.75
Robertson's Golden Fall Turnip, lb	1.00
Yellow Aberdeen Turnip, lb	.75
Yellow Stone Turnip, lb	.75
Improved Yellow Ruta Baga, lb	.75
Skorving's Ruta Baga, lb	.75
Lainz's Ruta Baga Turnip, lb	.75

Also, the celebrated
Scarlet Chinese Winter Radish, 7 oz. 20c, lb. 1.50
Together with every other variety of Garden and Field Seeds.
J. M. THORBURN & CO.,
15 John street, New York.

Turnip Price Current for the "Trade" only, just published. jelt

**GREAT SALE OF
THOROUGH-BRED JERSEY
AND
SHORTHORN DURHAMS.**

WILL BE SOLD AT AUCTION JUNE 15th, 1864, at the Giles' Farm, two and a half miles from Putnam Station, on the Worcester and Norwich Railroad, twenty head of Pure Bred JERSEYS, from one to five years old, fourteen with young calves.

Twenty head of SHORTHORNS and GRADES, ten of them Herdbook animals.
Also, a lot of improved Suffolk and Yorkshire PIGS.
A full Pedigree given to each animal, and warranted.
Catalogue at Sale. **JOHN GILES,**
jeit South Woodstock, Conn.

"A Slight Cold," Coughs.

Few are aware of the importance of checking a Cough or "SLIGHT COLD" in its first stage; that which in the beginning would yield to a mild remedy, if neglected soon attacks the lungs.

Brown's Bronchial Troches

give sure and almost immediate relief. *Military Officers and Soldiers should have them, as they can be carried in the pocket and taken as occasion requires.* jeit

SEEDS.

GARDEN, FIELD AND FLOWER SEEDS of every variety, of choice and reliable.
FARM AND GARDEN IMPLEMENTS of all kinds.
GUANO, BONE DUST and other fertilizers.
PLANTS, TREES, ROOTS, &c., for sale at low prices by
JOHN VANDERBILT,
jeit Union Agricultural Warehouse,
23 Fulton street, New York.



THE CELEBRATED CRAIG MICROSCOPE.—Combining Instruction with Amusement, is mailed, prepaid, for \$2.50; or with 6 beautiful Mounted Objects for \$3.25; with 24 Objects, \$5.50, by **HENRY CRAIG,**
180 Centre street, New York.

Also, he will mail, prepaid, the Novelty Magnifying Glass, for examining Living Insects, Seeds, Flowers, &c., for \$1.50; or with 12 beautiful Mounted Objects for \$3. je'63it

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FARMERS PRODUCE of all kinds, Green, Dried and Canned Fruits, Maple Sugar and Sirup, Pork, Poultry, Butter, Eggs, Game, &c.
Particular attention paid to Fruit. Consignments solicited.
April, 1864.—3t

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CAYUGA CHIEF, JR., MOWER.

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je3t **BURTIS & BEARDSLEY.**

AMMONIATED PACIFIC GUANO.

A REAL GUANO, containing from 70 to 80 per cent. of phosphate of lime, to which has been added by a chemical process a large per centage of actual ammonia, so fixed that it can not evaporate, making it equal, if not superior, to any other fertilizer.

Pamphlets with copies of analyses by Drs. Jackson, Massachusetts State Assayer, and Liebig, of Baltimore, and testimonials from scientific agriculturists showing its value, can be obtained from
J. O. BAKER & CO., Selling Agents,
mh6t 87 Wall street, New York.

TO FARMERS!

BRADLEY'S TOBACCO FERTILIZER, AND BRADLEY'S X L Superphosphate of Lime, are for sale at wholesale and retail by the Manufacturer. **WM. L. BRADLEY:**
Sales Office 24 Broad street, Boston.

Pamphlets containing testimonials in favor of his Tobacco Fertilizer, Bradley's X L Manual on the Culture and Curling of Tobacco, with Illustrations, can be had by addressing the undersigned. **WM. L. BRADLEY.**
Highest Cash prices paid for Bones. my

IMPROVED STOCK FOR SALE—I desire to diminish my stock, and will sell low some superior LEICESTER SHEEP, a few very fine BLOOD MAKES, (Morgans, Black Hawks and Hambletonians), and COLTS, from one to four years old. One pair of very beautiful four-year old BLACK HAWK STALLIONS, 15½ hands, jet black color, closely matched and of extraordinary style, and promise of speed. Price, \$500 for the pair, or \$500 each, if separated.
Catalogues with descriptions sent when requested.
my2t **H. L. SHIELDS,** Bennington, Vt.

FARM FOR SALE.

A GOOD FARM of 110 acres, near the village of Van Etten, in Chemung county, N. Y., 14 miles from Havana. It is good land, but as I can not attend to it myself, I will sell it for \$25 per acre. Only one-third of the purchase money need be paid down. The remainder can lie any length of time that is desired.
JOSEPH HARRIS, Rochester, N. Y.

A 40-ACRE FARM IN MICHIGAN.

FORTY ACRES OF WOOD-LAND—Heavily timbered, near Wyandotte, a few miles from Detroit, Mich. Will be sold cheap.
JOSEPH HARRIS, Rochester, N. Y.

TWO INVENTORS AND PATENTEES—Inventions EXAMINED and opinions given without charge. Patents OBTAINED; Patents RE-ISSUED; Patents EXTENDED. No charge for rejected cases unless successful. **J. FRASER & CO.,**
ap2t Western New York Patent Agency,
Buffalo and Rochester, N. Y.

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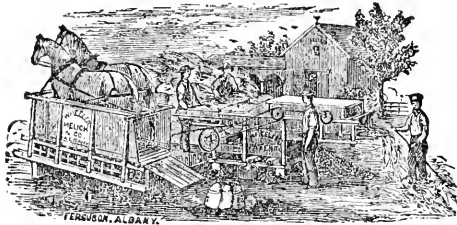
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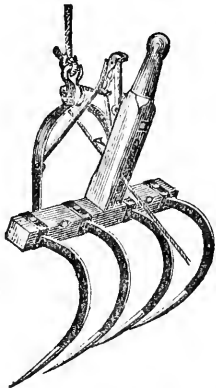
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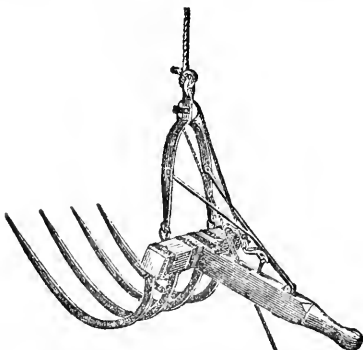


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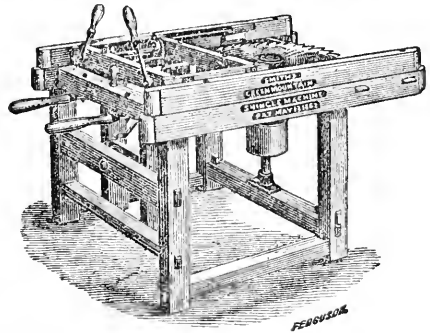
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Circulars and Price List Sent Free on Application.

Mayhew's Horse Management.

JUST PUBLISHED,

The Illustrated Horse Management, containing descriptive remarks upon Anatomy, Medicine, Shoeing, Teeth, Food, Vices, Stables; likewise a plain account of the situation, nature, and value of the various points; together with Comments on Grooms, Dealers, Breeders, Breakers, and Trainers; also on Carriages and Harness. Embellished with more than 400 engravings from original designs made expressly for this work. By EDW. MAYHEW, M. R. C. V. S., author of "The Illustrated Horse Doctor" and other works. 1 vol. 8vo.

MAYHEW'S HORSE DOCTOR.

NEW EDITION.

The Illustrated Horse Doctor; with more than 400 pictorial representations of the various diseases to which the equine race is subjected; together with the latest mode of treatment, and all the requisite prescriptions written in plain English. By EDW. MAYHEW, M. R. C. V. S. 1 vol. 8vo.

[From the London Globe.]

Every gentleman who possesses or cares for Horses would do well to keep this book in his house. Mr. Mayhew's treatment of the worst diseases to which Horses are liable is very clearly laid down, and the method of keeping Horses well and to a prolonged old age is that of nature, of common sense.

For sale by all Booksellers.

J. B. LIPPINCOTT & CO.,
 Publishers, Philadelphia.

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Maryland Farms for Sale.

WE have for sale over Two Hundred FARMS in this State, of as beautiful and productive land as ever the sun shone upon, having access by railroads, steamboats and turnpikes.

These Farms, in many instances, can be bought for less than the improvements upon them cost, in consequence of the change from slave to free labor.

As Surveyors we have an intimate knowledge of the lands of this State. Inquiries by letter will be promptly answered.

R. W. TEMPLEMAN & CO., Real Estate Brokers,
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Shorthorns for Sale.

THE BULL HOTSPUR 4030 A. H. B. by Duke of Gloster (11,3-2) dam Daphne (imported) by Harrold (10,299), rich roan, calved May 15, 1860. Also, three YEARLING BULLS and five BULL CALVES, mostly by Hotspur, and a few HEIFERS.

Catalogues sent on application.

T. L. HARRISON, Merley, St. Lawrence co., N. Y.

White or Hedge Willow for Sale.

CUTTINGS of this superior live fence plant, of suitable length, at \$1 per 100 or \$5 per 1000. Warranted true SALIX ALBA.

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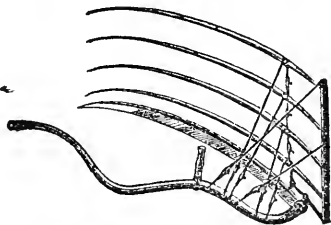
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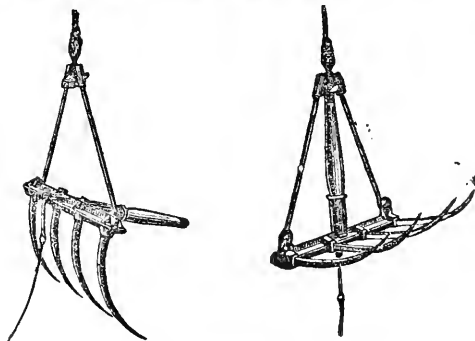
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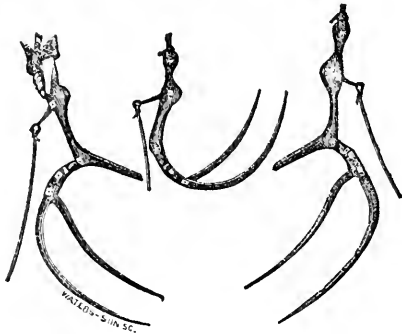
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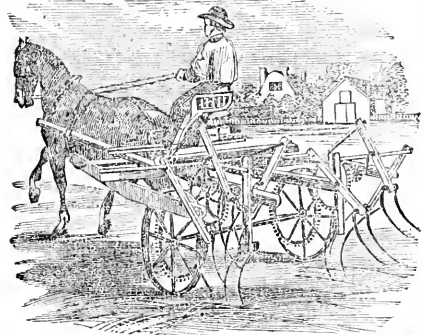
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PATENT HAY TEDDER,

Or Machine for Spreading and Turning Hay.

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Bullard's Improved Hay Tedder,

now proposes to furnish the Farmers to the extent of his ability, which must necessarily be limited the coming year, owing to the difficulty of obtaining good and competent mechanics.

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ONE POUND OF THIS EXTRACT WILL MAKE SIXTEEN GALLONS OF WASH.

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U. S. 10-40 BONDS.

These Bonds are issued under the Act of Congress of March 8th, 1864, which provides that in lieu of so much of the loan authorized by the Act of March 3d, 1863, to which this is supplementary, the Secretary of the Treasury is authorized to borrow from time to time, on the credit of the United States, not exceeding TWO HUNDRED MILLION DOLLARS during the current fiscal year, and to prepare and issue therefor Coupon and Registered Bonds of the United States; and all Bonds issued under this Act shall be EXEMPT FROM TAXATION by or under any State or municipal authority. Subscriptions to these Bonds are received in United States notes or notes of National Banks. They are TO BE REDEEMED IN COIN, at the pleasure of the Government, at any period *not less than ten nor more than forty years* from their date, and until their redemption FIVE PER CENT. INTEREST WILL BE PAID IN COIN, on Bonds of not over one hundred dollars annually, and on all other Bonds semi-annually.

The interest is payable on the first days of March and September in each year. The semi-annual Coupons are payable at those dates, and the annual Coupons on the 50 and 100-dollar Bonds are payable on the first of March.

Subscribers will receive either Registered or Coupon Bonds, as they may prefer. Registered Bonds are recorded on the books of the U. S. Treasurer, and can be transferred only on the owner's order. Coupon Bonds are payable to bearer, and are more convenient for commercial uses.

Registered Bonds will be issued of the denominations of Fifty Dollars (\$50), One Hundred Dollars (\$100), Five Hundred Dollars (\$500), One Thousand Dollars (\$1,000), Five Thousand Dollars (5,000), and Ten Thousand Dollars (\$10,000); and Coupon Bonds of the denominations of Fifty Dollars (\$50), One Hundred Dollars, (\$100), Five Hundred Dollars (\$500), and One Thousand Dollars (\$1,000).

Subscribers to this loan will have the option of having their Bonds draw interest from March 1st, by paying the accrued interest in coin—(or United States notes, or the notes of National Banks, adding fifty per cent. for premium,) or receive them drawing interest from the date of subscription and deposit.

As these Bonds are exempt from municipal or State taxation, their value is increased from one to three per cent. per annum, according to the rate of tax levies in various parts of the country.

At the present rate of premium on gold they pay over eight per cent. interest in currency, and are of equal convenience as a permanent or temporary investment.

It is believed that no securities offer so great inducements to lenders as the various descriptions of U. S. Bonds. In all other forms of indebtedness, the faith or ability of private parties or stock companies or separate communities only is pledged for payment, while for the debts of the United States the whole

property of the country is holden to secure the payment of both principal and interest in coin.

These Bonds may be subscribed for in sums from \$50 up to any magnitude, on the same terms, and are thus made equally available to the smallest lender and the largest capitalist. They can be converted into money at any moment, and the holder will have the benefit of the interest.

The fact that all duties on imports are payable in specie furnishes a fund for like payment of interest on all Government Bonds largely in excess of the wants of the treasury for this purpose.

Upon the receipt of subscriptions a certificate of deposit therefor, in duplicate, will be issued, the original of which will be forwarded by the subscriber to the Secretary of the Treasury, at Washington, with a letter stating the kind (registered or coupon) and the denominations of Bonds required.

Upon the receipt of the original certificates at the Treasury Department, the Bonds subscribed for will be transmitted to the subscribers respectively.

Subscriptions will be received by the *Treasurer of the United States* at Washington, and the *Assistant Treasurers* at New York, Boston and Philadelphia, and by the First National Bank at Albany, N. Y., by the First National Bank at Buffalo, N. Y., and by all National Banks which are depositaries of public money. All respectable Banks and Bankers throughout the country will furnish further information on application, and afford every facility to subscribers. je2t

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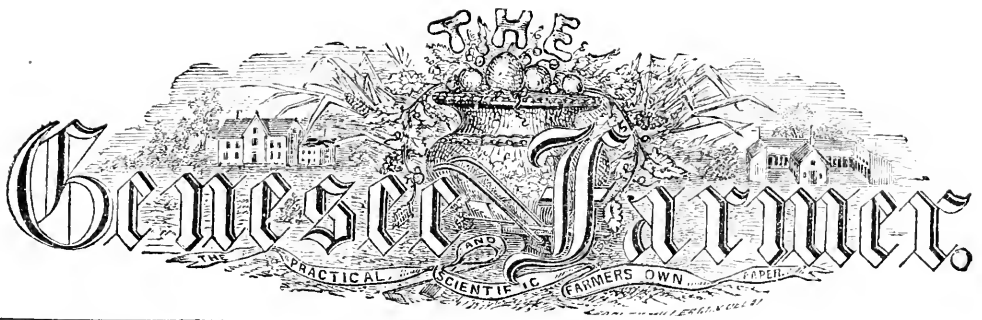
THE GENESEE FARMER:

A MONTHLY JOURNAL OF AGRICULTURE AND HORTICULTURE.

Published at Rochester, N. Y., by

JOSEPH HARRIS.

Terms—INVARIABLY IN ADVANCE—Seventy-five cents a year; six copies for Three Dollars, (only fifty cents each.)



WALKS AND TALKS ON THE FARM.—NO. 7.

It is glorious weather for cultivating corn. Rain is wanted on the late sown barley and oats, but I would not ask for better weather for corn or any other crop that you can horse-hoe. It is easy to destroy weeds, and the soil can readily be made as loose and mellow as a garden.

How much corn ought a man to cultivate in a day? Mr. I— says one of his men cultivated eight acres yesterday. I timed my men, and found that they were, on an average, four minutes to a row forty rods long. As the rows are 3 feet 4 inches apart, each row is the twentieth part of an acre. At four minutes to the row, it would take one hour and twenty minutes to the acre, cultivating it once in a row. This would be $8\frac{1}{2}$ acres in a day of ten hours. If the horse walks two miles an hour, it would take exactly 10 hours to cultivate 8 acres.

I had three men cultivating corn yesterday, and it took them eight hours to go once over twelve acres. This is equal to five acres a day for one man. They are now going over the field the second time, and as they can see the rows more readily they will probably do better. Even at five acres a day I am satisfied that nothing will pay better than the free use of the cultivator.

Mr. Noah North, of Genesee county, writes me that he has found the following method of ventilating hay stacks or mows very convenient and satisfactory: "Before commencing to fill the bay with hay, take an empty salt barrel with both heads out. Place it in the center of the bay with the bottom end resting on two rails, which extend to the outer sides. Then place the hay round it, and as the mow progresses raise the barrel, keeping a greater part of it above the surrounding hay—thus forming and leaving a hole in the center of the mow from bottom to top, through which the steam or gases arising from the hay may escape and prevent over-heating."

I recommended this method of ventilating hay stacks in the *Genesee Farmer* eight or ten years ago, except that I would use a bag filled with cut straw instead of a barrel. In England the practice is very

common. In this country, where we usually have good weather for curing hay, it is not so necessary. I have seen an English stack of clover hay in which such a hole had been left smoke like a chimney! Of course it would be better to cure the hay sufficiently to prevent such excessive fermentation, as the heat and gases so produced are generated at the expense of a portion of the nutritious matter of the hay. But it is not always easy to hit the exact point, and a ventilator or chimney of this kind will do no harm where it is not needed, and where it is will be very advantageous.

Mr. N. Travis, of Faribault, Rice county, Minn., writes me that he has been ten years in that State, and would like to say to his old friends at the East that he is satisfied that there is no State where cattle and sheep can be kept to better advantage, or where better grain can be produced. Many people think the climate is too severe, but the winters are dry, and sheep especially thrive remarkably well. The farmers are turning their attention to sheep, and he thinks in five years Minnesota will be a great wool-producing State.

I have no doubt that such will be the case. It is an old saying—"sheep like roast meat better than boiled." It is astonishing how well they thrive on pastures which look perfectly burnt up. I do not know that Minnesota is more liable to drouths in summer than the more southern States, but all accounts agree that Northern Wisconsin and Minnesota have a remarkably dry, steady winter climate, and this is just what sheep require. They will do better there than in the milder, but wetter, South-western States. I suppose the climate of Minnesota is quite similar to that of Vermont, now so celebrated for its fine-wooled sheep.

A gentleman from Canada writes me that he has discovered the cause of the potato rot—and its cure. The cause is a deficiency of electricity in the soil!

There is not the slightest evidence that this is the case; but the remedies he recommends are excellent. The object, he says, is to furnish good "conductors of electricity." On heavy land the ground should

be well cultivated and hoed to keep it porous, "so that the electric life can circulate freely. The potatoes will then grow large and fine, but so soon as the hoe and plow are laid aside, the soil becomes weather-beaten, the plants can not receive the supply of electric life they require, and the finest of them will decay. To avoid this calamity the soil should be kept free and open by conductors freely spread upon the land and plowed under—such as tan-bark, chip manure, leaves, chips of leather, old rags, &c.

This is all very well. Keep the soil porous by the free use of the cultivator and hoe, and, while we do not believe it would get any more "electric life," the plants will be able to penetrate the soil more easily, and will be more likely to resist the ravages of the disease.

I have no sort of doubt but that the potato rot is caused by a fungus; but farmers generally know so little of the habits of this class of plants, that they are at a loss to perceive how a minute plant can spread so rapidly as to produce the effects witnessed when a field of potatoes is affected with the disease.

At the International Wheat Show held in Rochester last fall, Mr. S. B. Walton, of Maryland, entered twenty bushels of "Boughton Wheat," which did not arrive until after the Fair had closed. It was of excellent quality, and ripens very early. John Johnston, of Geneva, purchased half of the lot for seed, and F. P. Root, of Sweden, the other half. Mr. Johnston, under date of May 27th, writes me as follows:

"I would like to hear how the Maryland wheat is doing with the farmer west of Rochester. Mine was hurt by the winter considerably. There is considerable of it now in ear, and has been for some days. My Soules wheat now looks splendid—too large—but I fear will be late. Where there is a large growth of straw the crop is always later than when a smaller growth. Mine is both too thick and too tall. In its present state of forwardness it ought to be coming in ear now, but I am doubtful if it is in ear in less than two weeks or more, and then it won't yield well. My Maryland wheat is very short in the straw and thin on the ground. The winter was too hard on it, but it is sure to be of prime quality. I will give it a better chance next autumn, both by shelter and a few days earlier sowing. I will make it succeed if possible. Mediterranean wheat looks anything but promising in this neighborhood, and I hear bad accounts from everywhere of the wheat crop.

"Grass is first-rate. Early-sown Barley never looked better. Much corn yet to plant. Rain has kept labor greatly back. I have not seen the like since I came here, now forty-three years."

The recent dry, hot weather is bringing the wheat forward rapidly, and I think it will be of good quality. The yield, however, will not be large. It is rare to find a field in this section where more or less was not injured by the wet weather in spring.

Mr. Johnston, on his rich, thoroughly underdrained farm, may have wheat "too thick and too tall," but there are few who have any cause to complain on this account.

By the way, Mr. J. says that if he had his life to live over again, he would put his drains only sixteen feet apart! They are now about thirty feet apart. If my farm was only half as well drained as his I would be satisfied—for the present. It is said, however, that partial underdraining is of comparatively little benefit. It is better to thoroughly drain one field than to half drain two.

A few weeks ago a young man in Canada wrote me that he wished to come to the States to learn farming. He was seventeen years old, without means, and was then engaged in a printing establishment. He had a taste for agriculture, and thought he would like to be a scientific farmer. I wrote him that the only way he could learn agriculture was to hire out with a good farmer, and that he would find as many such in Canada as in the States, but that he could probably get higher wages here. He now writes me: "Do you think that any other situation (besides a laborer on a farm) could be got for a boy of seventeen? Also, what are the wages for different hands on a farm?"

I have one boy on the farm sixteen years old that I pay twelve dollars per month and board. Twenty dollars per month and board for the summer months is about the average paid to first-class farm hands. There is no difficulty in getting work on a farm, but it is not so easy to get a situation in the city. If this boy has a real taste for agriculture, and is fully determined to make a good farmer, he will accomplish his object. There are no difficulties that will not disappear before a firm purpose and persistent effort.

But if a young man, without property, thinks he can become a "scientific farmer" and have a nice, easy time of it into the bargain, he will certainly be disappointed. I can easily imagine a young man who spends some time in reading a certain class of agricultural literature, entertaining the idea that nothing is so easy as to become "a scientific farmer," and he might picture to himself a fine farm with good buildings, heavy crops and large herds of thoroughbred cattle, and himself the owner of the whole—simply by availing himself of a little chemical knowledge which he had picked up from books! Alas! it is not easy to become a scientific farmer. Nothing valuable can be had without labor—and the labor needed is generally in proportion to the value of the thing desired.

I once knew an English boy, the son of one of the younger branches of an old aristocratic family, who was asked one day by his father what pursuit in life

he intended to follow. "Will you be a doctor, or a lawyer, or a parson?" he asked. After a few minutes reflection the little fellow replied: "I will be like Uncle John, and have a farm and go a-unt-ing!" "Uncle John" was the owner of a large estate, and kept a good stud of hunting horses, with other things to match, and there are few of us who would object to adopt "Uncle John's" profession. There are few of us, too, that would not like to be scientific farmers with plenty of money to do things "just as they should be." But those of us who are poor must make up our minds to a good deal of hard work, and learn to take pleasure in doing our daily duty. In this way we shall be of more use to others and be happier ourselves than if we were "born with silver spoons in our mouths."

How hard it is to keep men at work unless you are with them—and it is not easy even then at this time, when they know quite well that if you turn them away they can get work the next day. "If my ways don't suit you," said one of my men to me a few days since, "why, you can just get some one else in my place." I told him that he had engaged to work for me until the first of November. I had kept him through the spring, when, owing to the wet weather, we had comparatively little to do, and now that the work was very pressing it was not honorable on his part to neglect his duties, and then when I complained to tell me that I need not keep him. Finding that moral suasion had little influence, I told him that of course he could leave if he wished, but that I should not pay him; and furthermore, if he idled away his time, I should keep an account of the hours he lost, and charge him for the team as well as for his own time. This seemed to be a new idea to him, and he has worked better since.

It seems, however, that, as the law now stands, the only way in which it can be done is to sue the man before the expiration of his time. When his time is up, if you refuse to pay him the full amount, he can sue you in a Justice's Court and recover the whole. He may have robbed you or cheated you in various ways, and even confess that he has done so, and you can not make any set-off against his claim for wages. He can recover the full amount. The only way is to get a judgment against him before the expiration of his time.

Those who have anything to sell, should keep track of the markets. Wheat advanced yesterday from ten to twenty cents a bushel. I know a farmer near here who sold six hundred bushels three days ago for \$1.80 a bushel. He could now get \$2.00.

I intend to put in all the wheat I can this fall. There is a general feeling that spring crops pay better than wheat—and for the last few years in this

section such has been the case. The result will be that less wheat will be sown than usual. Owing to the magnificent crop of wheat last year in Europe, especially in Great Britain, wheat has been lower than any other grain. It is not improbable that the effect of this fine crop will still be felt for several months, and that we shall not get for this year's wheat crop as high a relative price as for other grains. But if I mistake not, less wheat than usual will be sown this fall in all sections of the Loyal States, and wheat in 1865 will be in demand.

Oh, the stones, the stones! Yesterday William strained the beam of the three-horse plow so much that it would not work. I sent it to the city and got a new beam put in. This morning, before he had been three rounds with it, he struck a stone and broke the new beam in two! "The fault was in the beam," he said. "It was nothing but oak, and it ought to have been rock elm."

The fault really is in not getting out the stones. How any man can work among stones for five or six years and make no effort to get them out, is more than I can understand. The saving in implements alone would pay for the whole expense in three years—to say nothing of the value of the stones for fencing.

Butter is only worth 25 cents a pound in Rochester. Why it should be so low here while it is worth (in greenbacks) 50 cents a pound in England, it is difficult to understand, unless the quality is so poor that it can not be exported.

I know a lady in Chemung county that has contracted her butter for the season at 42 cents, and she has a neighbor who has contracted her's for 47 cents a pound. She keeps eighty cows. The butter from the one dairy is just as good as the other, but the one is well known in New York, and this is the only reason why it brings five cents a pound more than the other. It may be that there is butter made in this section that is just as good as that made in the "southern tier," but the latter has a better reputation and always commands a higher price. We have, on many farms at least, just as good pastures and as good water and as good cows, and why we can not make as good butter I do not understand.

"Put things up after you are through with them" is one of my standing orders. I do not know how it is with other farmers, but I can find few men who can be persuaded to adopt this simple rule. I have one man who actually contends that it is better to leave tools where you are at work, and then, he says, "you know where to find them!"

This morning I went to the potato field, and there found scattered up and down the lot six guano barrels, two baskets, about a peck of cut potatoes, and

a bushel or so of uncut, one hoe, two spades, two pails, a tin pan, and a coal-scuttle!

A gentleman in Canada writes me that an excellent plan to get rid of the maggots which destroy so many cabbage and cauliflower plants by eating their roots, is to dissolve half an ounce of corrosive sublimate in four gallons of water, and water such plants as are affected, either in the seed-bed or when set out. It will kill all kinds of insect life. It is a virulent poison, and should be used with care. It would probably be equally destructive to the maggots which attack our onions.

John B. Ellis, of Delphi, Ind., writes me asking where he can procure a good Cotswold ram. He adds: "I would like a good one, but don't want it to turn out like the Canadian's "Chester White Pigs."

Hot and dry as the weather is, the beans grow finely. I soaked the seed for forty-eight hours before planting, and they came up in a few days, and before I knew it were large enough to hoe. In this section there were never so many beans planted as this year, and it is not impossible that the market may be overstocked. I have always thought, however, that beans might be raised with profit even for feeding sheep.

The newspapers report a splendid crop of grass in this State and throughout New England. Grass certainly grew well in May, but the dry weather has checked it considerably. My meadows are burning up, and will yield rather a light crop. I hear that others are making the same complaint.

I have just heard that the drouth is so severe in Wisconsin and Minnesota that great fears are entertained for the growing crops. The spring wheat, which is the kind principally grown, it is said, will be an entire failure. It has created quite a panic among the grain merchants in Milwaukee. Wheat went up in one day over 20 cents a bushel! It seems to be admitted that the wheat crop of the country will not be over two-thirds the general average.

Corn is much more promising, and, if we can credit the newspaper accounts, an unusually large breadth of land has been planted. Never were large crops so much needed as at the present time, and farmers, both for their own interest and for the welfare of the nation, should strain every nerve to secure this result. Wages are high, but not higher than grain and other products.

Last month I predicted that wool would bring *a dollar* per pound before next spring. Yesterday (June 22) gold went up, for a short time, to 230! Wool and pork, which are favorite articles with speculators, followed suit. Ohio domestic fleece

was sold at one dollar per pound, and mess pork at \$43 per barrel. I was in the city when the news of this great advance in gold was received. Everybody was excited. "It will be 500 in less than six weeks," said a well known speculator. Perhaps the wish was father to the thought. "It takes two tollars for one," said the Dutch butcher-boy, and I suppose, asked a cent a pound more for his meat.

To-day, gold is down to 210! and I shall probably have to hold my wool awhile longer before I get a dollar per pound. As soon as I can get a dollar for it, I will sell, but not before—at least, not at present. There is probably more wool produced this year than ever before, but the consumption is also greater.

The papers are urging farmers to sow ruta bagas and other turnips. The advice is timely; but unfortunately turnips require a thorough preparation of the soil. In England, where this crop is held in such general estimation, the land is plowed in the fall and two or three times in the spring, with numerous harrowings, rollings, &c., until the soil is as mellow as an ash heap. Nearly all the manure of the farm is applied to the turnip crop. The result is enormous crops, which, being consumed on the land, add greatly to its fertility.

I believe we could raise just as good crops of ruta bagas and white turnips in this country if we gave them as good culture. Turn up the moist soil immediately before sowing. Drill in the seed in rows 2½ feet apart, and when the plants are in the rough leaf, thin out to 12 inches apart; and if the soil is rich we may expect a good crop. To sow ruta bagas broadcast, and neglect to hoe them, is a waste of seed and labor. The common white turnip may sometimes give a fair crop with such treatment, but it would be better to sow in drills and hoe them.

I have tried several new kinds of peas this season, but find none of them for early peas better than Daniel O'Rourke. The Washington, which I have grown for the first time this year, is decidedly a poor variety—not even as good as the old fashioned Early Kent. It is dry and hard, and decidedly deficient in sweetness and flavor. It is little better than the Tom Thumb.

I have one crop that I feel proud of: some Early June and Six Weeks potatoes. The ground is very warm and light, and I planted in good season, and manured them in the rows at the rate of 400 pounds to the acre, with Baugh's raw-bone superphosphate. Better potatoes I never saw. Of all the manures I have used the present season, this raw-bone superphosphate, so far, has done the most good. For garden vegetables it is certainly an excellent manure.

CORN AFTER TURNIPS.

THERE is a very general impression that corn will not succeed on land where turnips have been raised the previous year. Every now and then the subject is discussed in our agricultural papers, and the facts elicited are of the most contradictory character. Some say that the turnips "poison the land," while others assert that they are not injurious. One of our leading agricultural journals says:

"We have seen the experiment of cultivating corn after turnips tried again and again without success, and have never known an intelligent farmer who under any circumstance would incur the risk of losing his seed, labor and manure, by attempting to make a decent crop of corn upon land which had yielded a crop of ruta бага turnips the previous year.

"For the smaller grains, and especially wheat, the turnip crop is a good preparation, but whether the land is poisoned or not, some how or other the Indian corn does not find in such soil the pabulum which will make it grow."

That turnips are a good crop to precede wheat and barley, especially if they are consumed on the land, as in England, is a well-known fact. There is no crop so good for this purpose. We have seen a field that was part potatoes and part turnips, and the crop of barley the next year showed the exact row where the potatoes ended, from the increased luxuriance on the turnip land.

Where turnips are consumed on the land, or where the manure made by their consumption is returned to the soil, no plant that we are acquainted with is so beneficial as this so-called "fallow crop." Where turnips are grown and removed entirely from the land, as is generally the case in this country, they probably impoverish the soil as much as any other of our commonly cultivated crops.

The reason why turnips have proved so beneficial to English agriculture is mainly owing to the fact that they take up from the soil a large quantity of organic and inorganic "plant-food," and which is returned to the land directly or indirectly in the form of manure; but if the turnips were sold off the farm, this large quantity of "plant-food" would be lost to the soil, and the turnip, instead of being a renovating crop, would prove an exhaustive one. That turnips "poison the land" there is no sort of evidence. That corn will not do as well after them as the smaller grains is quite possible. We are inclined to think that corn requires more carbonaceous matter in the soil than wheat and barley, and it is well known that turnips take more carbonaceous matter from the soil than any other crop we cultivate. If it is a fact that corn will not do as well as wheat and barley after turnips this may be the reason. But is it a fact?

CLOVER, as well as the grasses, intended for hay, should be mowed when in blossom.

FARM WORK FOR JULY.

CONTINUE to cultivate well, till arrested by the labors of haying and harvesting. Continue the war against weeds; "a stitch in time will save" thousands. See work for last month.

HAYING.—The best time to cut hay is at the transition from flower to seed. The precise point, of course, can not be generally attained in ordinary practice, where many days are required for securing a crop, but the nearer we come to it the better. The expedition accomplished by means of mowing machines, horse rakes and horse forks have, however, greatly facilitated this object. Cutting grass early produces more readily a good after-growth. If done too soon, it will lack substance; if too late, it will be hard and woody. Celerity of operations depends much on good management, and on having every thing in full readiness. The omission of some requisite will delay the whole, and a day's delay, by throwing the mass of the work into a rain storm, may result in heavy loss.

STACKING in the open field can not be recommended. Ample barns should always be provided. Yet temporary necessity may often require stacking. When resorted to, it should be done well; the stacks built even and with symmetrical form; the hay should be pitched on from different sides to preserve upright and even settling; for when a stack settles to one side, it necessarily exposes the upper side to rain, and often to the loss of a large portion of the stack. Good stackers repeatedly and regularly pass around the structure, and place the hay in uniform forkfuls in regular and circular layers. The center is always rounded the highest. In a well built stack the fibres at the outside falling downward prevent any rains from passing in but a few inches; one laid up badly may allow the water to enter a foot or more. The sprinkling of a peck to a half bushel of salt through each tun of hay assists in preserving it, and renders it more palatable.

In selecting the best mowing machine, it is very important to procure one not liable to breakages; for a break may delay all hands, retard the work before approaching rains, and occasion a loss ten times as great as the mere cost of repairs. The best machines effect a great saving, and will cut regularly from eight to twelve acres per day—or in good grass from sixteen to twenty-five tuns daily.

Where every facility is provided in connection with the best modern machinery for hay making, including horse rakes and horse forks, hay can be manufactured for fifty cents a tun—with bad or imperfect management it may amount to \$2.00 or \$3.00 per tun.

HAY CAPS.—In regions of the country liable to sudden storms, and in proximity to cities where hay

commands a high price, hay caps are important and valuable, frequently saving much labor, and preserving the quality of the hay. After a little practice in use they may be applied in less time than is commonly required for trimming the cocks. The following directions for making them are given by H. F. French: "Take four yards of yard wide cotton sheeting; sew it together so as to make two yards square; hem the rough edges; turn up each corner two or three inches, and sew it strongly; tie in a short strong twine to form a loop, and you have a hay cap ready for use. Four sharp wooden pins, of hard wood, half an inch in diameter, eighteen inches long, to be thrust upwards through the loops into the hay at the bottom of the cock, completes the preparation."

WHEAT.—Cut this as nearly as practicable about one week before it is dead ripe. Careful experiments show that the grain is heaviest and makes the best flour while a portion, say about one-third, of the chaff is yet green, or with green streaks running through it, and the straw is brighter and richer. The same crop will of course vary some, and the time can not always be controled to a day, but the above rule should be aimed at. It is always worth paying something for insurance, and the extra labor required for putting up good, well-capped shocks, in which the grain may stand until thoroughly dry, is a very profitable premium to pay. Seven sheaves form a good size. The caps should be bound very tightly near the butts, and the straw broken down all round before placing it. Practice will enable a hand to shock very rapidly. Hay caps, made of cotton, form an excellent covering for wheat, when they can be had.

TIMOTHY SEED.—Select the best portions of timothy meadows for seed, pulling out any weeds or foul stuff which may be found in it.

Sow **BUCKWHEAT** during the present month. The ground should have been previously well prepared for it, and rendered clean and mellow. The failure of this crop is often owing to the imperfect manner in which it is put in.

CUTTING TIMBER.—The best season for cutting timber has caused much discussion; but full experiments have shown that it always lasts longest when most rapidly seasoned; this is more especially the case with all the soft and less durable kinds of timber. Basswood rails cut and split at midsummer, with the bark immediately peeled from the wood, will dry rapidly, and become durable and hard, like horn; cut in winter or spring, it dries very slowly, generally becomes sap-rotten, and is of little value.

ORCHARDS.—These, if young, should be kept well cultivated throughout summer, either in low, hoed crops, or in mellow soil without crops. This treat-

ment is most important for peach trees, which will grow at least ten times as fast as when their cultivation is neglected; apples three or four times as fast. Newly set cherry trees often die during the heat of midsummer, which is easily prevented by a wide and thick mulching placed around them. Watering young trees, at this time, usually does more harm than good, by merely crusting the surface without moistening the roots, and at best affording but an irregular and temporary supply. If the surface of the soil is kept mellow, it will preserve moisture enough in the earth, and the rapid growth of the tree will render watering unnecessary. The black-knot, which so often disfigures and destroys plum trees, may be kept off by watching and constantly cutting it away on its first appearance.

WEEDS.—The busy labors of the month are apt to cause a neglect of weeds; and farmers who have kept their hoed crops clean until now, frequently neglect them, and they become foul. One of the most economical of all expenditures would be that of a little more labor in destroying these weeds, so that they may not seed the whole land for another year.—*Tucker's Annual Register.*

THE ONION MAGGOT.

MANY parts of the world have been, and are yet, visited by this plague. On sandy land in Canada it was for some years impossible to raise a crop of onions from seed, and the consequence was that we were driven to import our supplies, and trust to the potato and top varieties. A lady who had a green-house and raised a large amount of early salad, had at one time a quantity of onion seed sown in the green-house early in the winter. After selecting such as were wanted for the house during the cold season, there was still left in the spring a large bed containing some thousands of plants. These were transplanted into the garden, and produced an abundant crop of fine bulb, far finer than any which had been previously raised from seed in the same place. They were also entirely free from the maggot, although beds of onions raised from seed adjoining the transplanted ones were completely swept off by the pest. The fact was taken advantage of in subsequent years, and an abundant supply of the finest onions was the result.

It would appear from this that the maggot produced by the fly can not exist on or injure the plant when it has attained a certain stage of maturity. Subsequent experiments confirmed this view of the case.

Every one whose land is subject to the onion maggot, and who may try this plan, should raise the onion plants from seed sown under glass *very early*. The soil in which the seed is sown should be coarse

sand, with a portion of well-rotted manure mixed through it. The young plants may then be removed without injuring the roots. In transplanting take care not to set too deep, and also take care that the roots go straight down into the earth, as they naturally would if sown where they are intended to stand.

The above method secures a good and early crop, saves all the trouble and pain of hand-weeding, which any one who has done much of will fully value. A deep cut with a spade and filled with liquid manure, ensures the size and growth of the crop.

A CANADIAN.

TRANSPLANTING SWEDISH TURNIPS OR RUTA BAGAS.

FEW persons are aware of the advantages attending the transplantation of Swedish turnips, and fewer still know how to do it. William Cobbett was the person who first pointed out the advantages of the plan to the English farmer. For many years at Botley, in Hampshire, England, he raised the most enormous crops. His mode of procedure, and in which many followed him, was this:

The turnip seed was sown very early in the season, in seed-beds composed of so loose and friable a soil (mostly, indeed, coarse sand and well-rotted manure thoroughly mixed), as to ensure the extraction of the plants when required without too much injuring the root fibres. During the time the plants were growing he was assiduously cultivating the soil in which they were finally to stand, and bringing it to the finest possible tilth. As soon as the plants were sufficiently matured, they were removed after a good watering from the seed-bed, taking care to lighten the earth with a trowel or other instrument in such a manner as to prevent injury to the fibres. The finest plants are of course first selected. After extracting, the plants remain for some hours in a mixture of soft mud and plaster. They are then taken to the field, no time being allowed for wilting and withering. The plow is set to work, and as fast as a furrow is thrown out the plants are laid along the surface of it, being dropped very rapidly. The roots are covered by the next furrow, and the planter follows to see that each plant is duly set—not too deep, but just up to the heart, and well pressed down with the foot. As soon as this is done, more furrows are plowed, and more turnips planted, and so on throughout the field. It is absolutely necessary that the planting and plowing should go on together. If only plowed the day before, the chances are greatly against success; but if the planting and plowing progress together, success is all but certain.

The writer of this article has seen Cobbett's field at Botley, and the growth exceeded belief.

The advantages are as follows: You get your fallows better cleaned, as during all the time the seed beds are growing you are cultivating the soil in which the plants are finally to stand; you are enabled to sow the plants so early as to be free from the fly, or you can protect them from the fly in the seed-beds by many well-known means; you save hoeing and thinning out, and you get a far larger yield per acre.

To prepare the plants, after withdrawing them carefully from the seed-bed, lay them along a trench, root downwards, fill the trench with a mixture of soft mud made with rich soil and some plaster, so that each root carries with it to the field a separate coating of the mixture. This may be done the evening before planting. It ensures them against wilting too much before the new growth commences.

Those who want to ensure the growth of cabbage plants will adopt the same plan of claying or mudding the roots, and taking care that they are grown in seed-beds of sand and well-rotted manure. *

GAS - LIME, &c.

EDS. GENESEE FARMER: I have purchased a small farm, mostly within the corporation of Canandaigua, which is inclined to clay, but not heavy clay. I desire to improve it, and therefore ask your opinion as to the value of lime which has been used at the gas works, which are within one-half mile of me. One of the workmen told me it was used in tubs to pass the gas through to make it "swell better." I am entirely ignorant of the process, and should like to know how much it is lessened in value for land by that process. They offer it to me at \$1.00 a wagon box full. If not materially injured, I have thought it might be an object to get it. Will you do me the favor to give me your opinion, at your convenience? Would lime be profitable for summer-fallow, or summer crops, or grass?—W. H. LAMPORT, *Canandaigua, N. Y.*

Those who have used gas-lime as a manure differ greatly in regard to its value. Some have found it quite beneficial, while others say it injured the crops. There can be little doubt but that the matter abstracted from the gas will injure plants if applied directly to them in large quantities. If applied to a summer-fallow at this time, and well incorporated with the soil, it is not probable that it will injure the wheat, and the lime will undoubtedly do good.

Lime, if you can obtain it at a reasonable rate, is one of the best and most permanent manures, and can be profitably applied to a summer-fallow for wheat. Use at least from 80 to 100 bushels per acre. Small doses seldom do much good. A convenient way to apply it is to put the lime in rows two rods apart, and put one bushel in heaps one rod apart in the rows. This will give you eighty bushels per acre. After it is slaked, spread it evenly over the surface with a shovel and harrow or cultivate it in.

BUTTER-MAKING.

WRITTEN FOR THE GENESÉE FARMER BY A. F. H., E. AURORA, N. Y.

To make good butter care should be taken that the cows are healthy and have access to pure water and good sweet pasture and are freely supplied with salt. The shelter of shade trees is also beneficial. The same cow should be milked by the same person at about the same time each day, and should be treated gently and milked quickly, without stopping after the milking has commenced. It is important that the cows should be milked at the same hour at evening as they are in the morning.

After being drawn from the cow, the milk should be immediately taken to the milk-room and strained. The milk-room should be airy, cool and clean; and should be so constructed that a current of air can not strike directly upon the milk, or the butter will be liable to be full of white specks. The temperature of the milk-room should be kept, summer and winter, as near 58° as possible. It should not be near any hog-pen, sink-hole, or anything which renders the atmosphere impure. Every impurity of this kind is readily communicated to the cream, and consequently affects the butter. Every vessel used for holding the milk, cream or butter, should be kept clean and free from acidity. It is contended by some that it is best to churn the milk, but it is practiced very little in this country. Tin pans are believed to be the best vessels in which to set the milk, and should not be filled more than two-thirds full. The milk should stand just long enough for all the cream to rise, which should not exceed sixty hours at any season of the year. Perhaps a finer quality of butter may be produced by skimming the cream off and churning it while sweet; but it is a wasteful practice, as the cream does not all rise until the milk begins to thicken. After being skimmed, the cream should be placed in tin or glazed earthen vessels and covered with a coarse cloth, which will keep out insects but not exclude the air. At every addition of cream the whole should be thoroughly mixed. In small dairies, where churning is not done every day, it has been found beneficial to throw a small handful of salt into the cream pot with the first skimming, which keeps it from becoming so sour as to be injured. I repeat, that when churning is not performed every day, it is of great importance that the cream which is newly taken off be mixed with that already in the vessel; otherwise, each skimming will remain in a layer by itself, and at the bottom will become very sour.

It is of little importance what kind of churn is used, provided all the cream is *continuously* and *uniformly* agitated. In large dairies some kind of power may be economically used in churning. The cream should be brought to about 60° or 62° F., and

churned moderately at first, as churning may be performed with so much rapidity as to injure the butter. When the butter is sufficiently gathered by churning, it should be transferred to a wooden bowl with a wooden ladle. In large dairies the butter is partially worked with a machine; in small dairies the wooden ladle is generally used. The question whether cold water should be used is unsettled. If the temperature of the dairy-room is cool enough, the buttermilk may be worked out in warm weather without the aid of cold water; if not, cold water may be advantageously used; but at all events the buttermilk should be completely expressed, as the smallest quantity will effect the quality of the butter and render it rancid. In some dairies the practice is to finish the working process at once; in others the buttermilk is worked out, and the salt partially worked in, and it is then set away until the next day, when the operation is completed; and still others work out the buttermilk and wait until the next day before adding the salt—and some even give it a third working before it is packed. I believe it is deemed injurious to work butter any more after being salted, than just enough to thoroughly mix the salt with the butter. Experience and practice alone will enable the operator to work the butter skilfully and get out all the buttermilk and thoroughly mix the salt without rendering it salvy. The best of salt should be used. Liverpool dairy salt is used by many, but it is thought by some that coarse solar salt made fine is preferable. The quantity must be determined by the taste; but as a general rule about one ounce of salt to a pound of butter may be considered the proper proportion. If salt is put into the cream, as above directed, less salt will be required in the butter.

Butter laid down should be packed firmly and covered over the top with half an inch of salt. Brine sufficient to wet the salt should be added. Some dissolve a little saltpeter in the brine put on the top of the firkin. For neighborhood or family use, stone jars are undoubtedly preferable to any other vessel for keeping butter; but for shipping it should be packed in oak firkins. Pine and cedar communicate an unpleasant flavor to the butter, and should never be used. It should be kept in a cool place. Rancid butter may be improved by working it in sweet milk; and it is said that working it in water, to which twelve or fifteen drops of chloride of lime to a pound of butter has been added, will greatly improve it.

SEX OF EGGS.—It is stated that the sex of eggs may be determined, so that a person may raise a brood of the sex he wishes. If males are wanted, the longest eggs should be used; if females, those most round should be chosen.

POULTRY HINTS FOR JULY.

WRITTEN FOR THE GENESEE FARMER BY C. N. EEMENT.

It is sound philosophy which places the *useful* before the *beautiful*. Let a poultry establishment be well attended to—once become an object of pleasure and pride to the proprietor—and the various tribes of poultry will not long remain forgotten or uncared for. Fowls are most valuable to the farmer, and indispensable to the country resident. Poultry and eggs form no inconsiderable articles for the culinary department and the table. The varieties of the common barnyard fowl are very numerous, and are distinguished from one another by their size, color and fecundity.

A young hen, it is calculated, will lay the first year about 150 to 170 eggs; the second 120 to 140—diminishing as she grows older; and she should “go to pot” after the fourth year.

Great improvement has already taken place in the size and quality of meat of our common fowls of the barnyard by crossing them with some of the new breeds, and more will take place. The improvement in quality and quantity of poultry realized within the last eighteen or twenty years must carry the value of our poultry at the present time beyond twenty-five millions. Yet the estimate we make, large as it may seem to the uninitiated, represents but a small part of their annual value. Nothing else that breathes in the service of man has such power of multiplication or productiveness as fowls. As evidence of which we will mention a case that occurred in California a few years ago, where every thing is conducted on a large scale.

A farmer commenced in the month of January with ninety hens, and in less than seven months the stock had increased to over fifteen hundred hens and chickens, besides about three hundred that had been sold! It must be observed, however, that there was no lack of proper care, which is always needed to insure success.

There is a vast difference in fowls, and while some are hardy and profitable, others are weakly, and scarcely pay their way under the most favorable circumstances and the best management possible to bestow. It is always a judicious plan for the farmer to keep a few fowls of some kind upon his premises, as there is generally enough waste matter to feed them, and besides they are serviceable in protecting in a measure, the crops, by destroying the numerous insect depredators, which in the spring and summer months prey so voraciously on the youthful and more tender plants.

Most of the hens have hatched and reared their early broods and commenced laying for a second clutch; and now is the time to secure eggs for future use—but then great care should be taken to have

them perfectly fresh. They should be collected daily and placed in a dry, cool place. If the eggs have been sit on even twenty-four hours, they should be rejected for keeping, but they are nowise injured for immediate use.

Preservation of Eggs.—The ancients had very imperfect notions of preserving eggs fresh if they knew no other method than what the elder Pliny says: “The best way to keep eggs is in bran-meale or floure, and during winter in chaffe; but for summer time, in branne.” This would no doubt preserve them longer than if they were left entirely uncovered, but it could not be depended upon, as we shall presently see, no more than the similar advice of Columella, who says: “The manner to keep eggs a long tyme is in the winter in straw, and in summer in branne or meale.”

Old Gervase Markham says: “Because eggs of themselves are a singular profit, you shall understand that the best way to preserve or keep them long is, as some thinke, to lay them in straw and cover them close; but that is too cold, and besides will make them musty. Others lay them in branne, but that is too hot. The best way to keepe them most sweet, most sound, and most full, is only to keep them in a heape of old malt, close and well covered all over.”

Nothing was known scientifically on the subject of preserving eggs till M. Reaumur was led to take it up. Eggs, after being laid, it was shown, lose daily by transpiration a portion of the matter which they contain, notwithstanding the compact texture of their shell, and of the close tissue of the flexible membranes lining the shell and enveloping the white. When an egg is fresh it is proverbially full, without any vacancy; and this is matter of common observation, whether it be broken raw, or when it is either soft or hard boiled. But in all stale eggs, on the contrary, there is uniformly more or less vacancy in proportion to the loss they have sustained by transpiration; and hence, in order to judge of the freshness of an egg, it is usual to hold it up to the light, when the translucency of the shell makes it appear whether or not there be any vacancy in the upper portion, as well as whether the yolk and white are mingled and turbid, or muddy, by the rotting and bursting of their enveloping membranes.

The transpiration of eggs, besides, is proportional to the temperature in which they may be placed—cold retarding and heat promoting the process; and hence, by keeping fresh laid eggs in a cool cellar, or, better still, in an ice-house, they will transpire less, and be preserved for a longer period sound than if they are kept in a warm place or exposed to the sun's light, which has also a great effect in promoting the exhalation of moisture. As therefore

fermentation and putridity can only take place by communication with the air of a moderate temperature, some means must be devised to exclude such connection by closing the pores of the shell.

The first material used by M. Reaumur was spirit of wine varnish, made with lac, and he says that "it was impossible to distinguish the varnished eggs, which had been kept for a year, from those newly laid."

It is an indispensable condition of the material used for stopping the pores of the shell of the egg that it should not be capable of being dissolved by the moisture transpired from the interior, and the varnish fulfil this condition; but unfortunately, though varnish is not very expensive, it is not common in country places where eggs are most abundantly produced, while many people, besides, are not easily brought to make use of anything to which they have not been accustomed.

In order to get over this difficulty, M. Reaumur was led to try other substances, and soon found that another material, very cheap and everywhere to be had, would very well supply the place of varnish. This material was fat or grease—such as suet, lard or dripping; but the best of these was proved to be a mixture of mutton or beef suet, melted together over a slow fire and strained through a linen cloth into an earthen pan. When thoroughly melted, an egg was dipped into it, and immediately taken out again, when it was in a fit state to be kept twelve months or more. Five pounds of this melted fat might prepare all the eggs produced in a neighborhood in one season.

The chief advantage in the use of this fat, rather than varnish, is, that the eggs rubbed over will boil as quickly as if nothing had been done to them—the fat melting off as soon as they touch the hot water; whereas the varnish, not being soluble even in hot water, only becomes moistened by it, and still hanging about the egg prevents the transpiration of the juices necessary to bring the egg into that state in which it is to be eaten. When the egg, on the other hand, which has been preserved by the fat, is taken out of the water, there remains very little fatness upon it, and what does is easily wiped off upon a napkin.

The method of preserving eggs by means of fat is greatly preferable to that of varnish, when they are intended for putting under a hen to be hatched; for the fat easily melts away by the heat, while the varnish remains and impedes the hatching.

The transpiration of matter from the egg was proved to be as effectually stopped by the thinnest layer of fat as by a thick coating, so that no sensible vestige need be left on the surface of the shell. All sorts of fat, grease or oil, were found well adapted to

preserve eggs. M. Reaumur used butter, hog's lard, olive oil, and similar substances, and thereby preserved eggs for nine months as fresh as the day they were laid.

There is another method of preserving eggs a long while fresh generally adopted in this country. It is as follows: Take an earthen pot, or any tight vessel, and put in a layer of fine salt, then a layer of eggs, small end down, alternately. This can only act mechanically, like bran or saw-dust, so long as the salt continues dry, for in that case the chlorine, which is the antiseptic of salt, is not evolved. When the salt, however, becomes damp, its preservative principle will be brought into action, and may penetrate through the pores of the shell.

A very excellent method of preserving eggs is to mix a bushel of quick-lime, two pounds salt, and eight ounces of cream of tartar together, adding a sufficient quantity of water, so that an egg may be plunged in to the point. When a paste has been made of this consistence, the eggs are put into it, and may be kept fresh, it is said, for two years.

The method of preserving eggs with salt we have tried repeatedly with entire success—even after two years we have found them sufficiently preserved for all culinary purposes, the shells looking as clear and white as if just laid.

HOW TO RAISE GEESE.

MRS. S. PILLSBURY, of Derry, N. H., furnishes the *New England Farmer* with her mode of raising geese. The old lady's ideas may prove useful to some of our readers:

"I recently found some inquiry in the *Farmer* about raising geese, and as I am an old hand at it, I thought I would reply. When they commence laying, which is usually in April or May, a box with bran or cotton on the bottom should be provided, so that the eggs will not roll about. As often as there is an egg laid in the box, the rest of the eggs should be turned over carefully. When the goose is done laying, and wants to set, she will make her nest, feather it, and set on it; the nest should then be taken out very carefully, and a nest made with about four quarts of horse manure, and some chaff on that; let it be made large and commodious, and then lay the nest that the goose made on the other very carefully, not disturbing the straw nor feathers. Fill it in all around the nest, making it about level, so that the goose can go on and off with ease.

"The goose sets four weeks; mind the time correctly. Two or three days previous to the time of hatching, place the eggs in a broad, deep thing, with milk-warm water enough to let them swim, and those that have live goslings in them will bob round and swim, and those that have not will sink or re-

main still; the gosling will break the shell on the end that stands out of the water.

"Do not put the eggs in water after the shell is broken, but drop some water on the gosling's bill, when the gosling is hatched and in nest dry. Take it in the hand, and with the thumb and finger press the bill open and drop in a pepper corn, and then some sweet cream; have ready some green turf; place it round the nest, and sprinkle on it some Indian dough, where the goose will pick and learn her young. They are a very tender fowl, and require care until their feathers are grown; after that they need not be feed if they run in the road.

"They can be plucked three times the latter part of the summer months. Some think it very wicked to pick them, but they shed all you pick, quills and feathers; they can be tried, and if they come hard, wait a week or two. Do not let the young go to water too soon; have a short thing for them to drink out of. If they should get chilled, take them to the fire and put warm ashes on their back, and feed them with cream with a teaspoon.

"Two geese are better than three, and one is better than two, as they are apt to beat each other; and unless they hatch altogether, they will beat the young. When I kept geese, I fed them on corn until the grass grew, and not after that until they were fatted in the fall."

HOW TO MANAGE A FRACTIOUS HORSE.

EDS. GENESEE FARMER: Mr. J. W. Brady, in the April number of the *Farmer*, inquires how to break a road horse that will not stand long enough after being "unhitched for a person to get in." (I suppose he means hitched up.) I will not pretend to answer his question exactly, for I am not much of a writer, and not as much acquainted with horse training as I should be. If Mr. Brady has spoiled the horse himself, no one can give him advice how to break it. The horse is the wiser of the two and *drives him*. If you have a colt or horse to break of a fault, you must out wit it. If a person has not as much wit as a beast, he certainly can not manage it; and if ten good advisers gave advice, he would not know how to carry it out.

I will now tell what I done this spring. I needed another horse, and went to a drover that came from Ohio and purchased a fine-looking four-year old bay horse for \$165, which I thought very low in these times, but I felt quite sure he had some trick. When I attempted to drive him single I found it out. He would not drive past a house or road that he had stopped at or turned before without some difficulty, and to ride him from the barn was impossible. Now I have him broke both to ride and drive single. How I broke him I can hardly tell, better

than to say I out-witted him. In the first place I broke him to ride, which I did in this way: I had two men with me; one got on him with a good raw-hide, and the others took long whips. Then came the tug. I must first describe the way he would act when we would try to ride him. If he was close to a building or a fence, he would take to that and rub you off or crush your leg. If you took him in a field, he would turn round and round, and then rear up and fall backwards, which was very dangerous. So I concluded to prevent his rearing. We would all three take good whips, and when he attempted to rear up cut away "right smart." He soon found there was too many lashes about his hind legs to stand long in that way. Then he attempted to kick us. We put it to him sharper than ever, and he soon found it best to drop that trick. The next question was how to get him away from the barn. I told the man to ride him up to the barn and try to take care of his leg, and we would soon fetch him out of that. He did so. The horse commenced rubbing, as at other times, to get him off, but on came the whips. He rubbed the barn from one end to the other, but it was of no use. He had to trot out of that. Then he rode him to the barn again. He tried to rub, but it was "no go," and he had to trot out again. Then the rider tried it alone. The horse began to rub. The rider used his raw-hide "fast and furious." He soon came out, and in a short time we had him so that we could ride him with the halter, and touch him with the strop and out he would come.

Now I was ready to put him to the buggy. I soon found that when I hit him he would kick. Some shouted "strop him down." I said no. Give me the raw-hide, and put back the top of the buggy, and I'll cut him so mighty quick that he can't kick; for while he gets ready to kick for one cut I hit him three others, and then he must get ready to kick for them; and by that time he has more cuts—so he is always getting ready and never kicks. Soon he trotted away. I now drive him to my carriage, and take my mother (eighty-one years old), and wife and two children anywhere, but as yet trust no one to drive him but myself. You see how that was done; perhaps Mr. Brady's horse should be treated quite differently. I will tell how I should treat Mr. B.'s horse, although I could judge better by driving him a little. I would put him to the plow or heavy teaming, and work him for two or more weeks, until he was as tired, as the saying is, "as an old plow horse." Then I would put him to a wagon alone, and let him go about as he pleased, (which would be much slower than at present,) and if I met a person I would stop and talk. If the horse thought best to go on, let him, but you would see before night that he would be glad to stop. Keep on in

this way for six months, stop at every house, and you will have him thoroughly broke. I know you will say at once, you want me to plow him to death and then huckster six months, and that I will not do. Very well. You keep him fat and fine, and drive him but once a week and break him, and I will be a thousand times obliged to know how you do it.

A. E. W.

Stewartsville, N. J., June, 1864.

ODD JOBS,

EDS. GENESEE FARMER: Let any farmer or person of moderate means look round his house and make a careful minute of all the odd jobs he will find which require to be done. Let him take paper or a memorandum book and note them down. He will find at least twenty little matters requiring repair or amendment. The plank-way to the well or yard; the fence round the garden; a garden gate that will open easily and close of itself; repairs to the box protecting the well or cistern; mending tools, harness—and in short almost innumerable small matters all wanting to be done, either on wet days or at some leisure time. Every one who is not a natural sloven is fully aware of the necessity of attending to these matters, but the great difficulty is *he has no tools*. His experience goes to show that the last time he tried to do any thing of the kind he had to go to a neighbor and borrow some tools to work with. The saw was too close, and very much otherwise than sharp; the chisels were all too large or too small; the bit-stock had lost its spring and would not hold the bits in their place, so that he could not withdraw them, and perhaps broke some and had to buy new ones to replace them. Nothing was fit to use, and hence what he did was wretchedly done.

There being no proper awl or gimlet, he tried to drive nails without the holes being bored; splits followed just when the most of the work was done, and the look of the job was spoiled, and our poor man of odd jobs was heartily discouraged, and excused himself by determining in his own mind that he never was intended for a mechanic, and never having learned the trade could do nothing at it but make a botch, which was almost worse than leaving the job undone.

His underrating his ability was a mistake. Almost every man has a certain amount of mechanical ability, but the great drawback is *bad tools*. No good workman has had tools. All the tools of a good workman are clean, free from rust, with good handles, and sharp as a razor. The saw is well set for green or dry wood, or he has one for each kind of work—ripping, cross-cutting or fine work. How then is it possible for an inexperienced person to do work with bad tools, or tools in bad order, when a

mechanic, with all his experience, requires tools the best that can be had.

The first step which any farmer can make towards renovating or repairing his homestead is to get a set of tools—some of each kind for working in iron or wood, not forgetting a soldering-iron for mending kitchen and other tin matters, and small patching. The whole can be got up for forty dollars, and will save their value and cost in one year, besides the satisfaction of feeling independent and of helping yourself, instead of living in a mess or having interminable bills to pay.

When the tools are got, a convenient, comfortable work-shop must be provided, isolated from the farm building and house, as there is always more or less danger from fire. Put up a good solid bench with an iron vice at one end and a wooden one at the other, a block for an anvil, or some substitute for one, and a good grind-stone in one corner, with a foot-crank to turn it with; and then the first wet or stormy day, referring to your memorandum book for the list of jobs that require to be done, select the first that your wife and family require as necessary to lighten their heavy cares and continuous work and all experience goes to show that the outlay for tools will not be regretted.

Again. When your sons require employment in bad weather, there is always some little mechanical job to do in which they will soon take the greatest delight. Nothing reconciles a boy or young man more to what he has to do than to be able to do it better than others similarly circumstanced; and if there is any mechanical talent, it will develop itself wonderfully in the amateur work-shop. Then in busy times, when plows, harrows or wagons break, the loss of time in going to the tradesman is often much greater than in doing the work.

We once knew a gentleman who did all this in England for a few years before the family emigrated. On the arrival of the family in the adopted land, there was not one of the sons who could not do any ordinary job, and no part of their education was found more useful and advantageous than the knowledge of the use of tools. Losses took place. Fire destroyed their buildings in more than one instance, but their mechanical knowledge enabled them to build again, when otherwise they must have given up hope, and turned their exertions into a far lower sphere of action.

A CANADIAN.

ABUNDANT crops can not be grown for a succession of years unless care be taken to provide an equivalent for at least a portion of the substances carried off the land in the products grown thereon.

THOROUGH preparation of land is absolutely necessary to the successful growth of crops.

SHORT SERMONS FOR FARMERS—No. 7.

WRITTEN FOR THE GENESEE FARMER.

AND he said, So is the kingdom of God, as if a man should cast seed into the ground; and should sleep, and rise night and day, and the seed should spring and grow up, he knoweth not how. For the earth bringeth forth fruit of herself; first the blade, then the ear, after that the full corn in the ear. But when the fruit is brought forth, immediately he putteth in the sickle, because the harvest is come.—MARK 4: 26-29.

THE illustration of man's casting seed into the ground may be applied to those who, under Christ, are teachers in the Church. This part of the parable appears to be specially applicable to them. It is their duty to sow the seed of the kingdom, and nothing else. Its germination is to be left to the wisdom and power of God. They are no more responsible for its germination in the hearts of men than the husbandman is responsible for the growth of the seed which he casts into the ground. Having done that which God requires him to do, *i. e.*, cast in pure seed, he is to believe that his word will accomplish that whereunto he sends it. "I have planted," says Paul, "and Apollos watered, but God gave the increase." The anxiety of one called of God to preach the gospel is to conform himself to God's plan of advancing his kingdom, trusting the issue wholly to him.

The operations of divine grace in the soul are secret and mysterious. They are as much beyond our comprehension as the growth of plants. "And the seed shall spring up he knoweth not how." Little is known concerning the laws and principles of vegetable life. A child may ask questions on the subject which no philosopher can answer. The seed is cast into the ground—it is hidden from sight—it undergoes changes—it springs up. But who can tell *how*, in the sense of explaining the principles and vitalities involved in the process? The principle existing in the seed, by which it germinates, is mysterious—the principle by which it pushes the right part upward and the right part downward is mysterious—the process too invisible. So the process of divine grace in the soul of man is mysterious and invisible. "The wind bloweth where it listeth, and thou hearest the sound thereof, but canst not tell whence it cometh or whither it goeth; so is every one that is born of the spirit." It is vain for man to attempt to analyze the process and develop the philosophy of the divine life begotten by the word. The messengers of God sow the seed, but God only knows its invisible process of germination. For a long time after it is sown, it frequently appears as though it were sown by the wayside to him who watches for souls. At the same time the process is going on, and in due time the tender blade appears. The people of God are often so blind as to suppose that God has almost forgotten to be gracious, when at the same time he

is carrying on the invisible process of germination of the seed of the kingdom in the souls of men, and perhaps in the souls of our most intimate friends. This invisible and secret growth of the seed of spiritual life in the souls of men is the leading idea of the parable. "So is the kingdom of God as if a man should cast seed into the ground, and should sleep and rise night and day, and the seed should spring up and grow, he knoweth not how." As the process of grace in the hearts of individuals is secret and unobserved until the blade appears, so it is with respect to the kingdom of God at large. There have been periods when God was carrying on in secret, through the influence of apparently insignificant, if not unobserved causes, the process of enlarging his kingdom, when its enemies confidently anticipated and predicted its overthrow. Hence the friends of true religion have no reason to despond in the darkest time. Her enemies have no reason to rejoice when an easy triumph is apparent. God works, often, out of sight to accomplish his purposes and to defeat his enemies. Hence it often occurs that events which elate the enemies of the cross and depress its friends, issue unexpectedly in the shame of the one and in the joy of the other.

Although we do not know *how* the seed springs up and grows, yet it has a law of development—"first the blade, then the ear, then the full corn in the ear"—or, in other words, God has a uniform method by which he advances his kingdom. This uniform method by which he exercises his wisdom and power, we call the law of spiritual development in individuals and in his kingdom at large. It would be easy for God, if he saw fit, to bring the work of grace to a speedy termination by its instantaneous completion; but he chooses to take time to accomplish it. It is mysterious to us that he should have suffered his kingdom on earth so long to struggle against its enemies with so little comparative success. For some six thousand years his kingdom on earth has been struggling, and yet how few, comparatively, are its willing subjects. But his ways are not our ways. The seed of the kingdom, instead of springing up in a day, progressively and gradually develops itself towards perfection.

But grace, viewed in connection either with the kingdom of God in the world or in the individual believer, will progress to maturity. When the kingdom of God on earth is perfected in its triumph over all evil, then cometh the harvest. Then the command will go forth: "Thrust in thy sickle and reap, for the time is come for thee to reap; for the harvest of the earth is ripe." So it is with the individual believer, when he is meet for the inheritance of the saints in light—when the fruit of grace is perfected in him—when he has served his generation according to the will of God—he will be gath-

ored like a shock of corn fully ripe to the garner of the Great Husbandman. Some are called to endure the burden and heat of the day, and some to labor only for an hour. Some are not matured for years, others in a short time. God only knows when his work is accomplished in us, and we are made meet for his kingdom in glory. When that time arrives we shall be gathered.

REMARKS.—Many farmers are Sabbath school teachers. As farmers you are careful to sow pure seed. So as Sabbath school teachers you are to be careful to sow nothing but the pure word of God. As parents also, you are to teach your children—not human notions and opinions—but the unadulterated word of God. This is the seed of the kingdom. Its germination in the hearts of those you teach is the work of God. Hence you are to pray as you sow. Be not discouraged because God works out of your sight. When you least expect it, the blade may appear. Resort to no human inventions to promote the kingdom of God. The promises of success which they sometimes give are never fulfilled. Seek conformity to God's plan of advancing his kingdom, and final success is certain, however long it may be delayed.

If we find within our hearts no signs of the germination of the seed of the kingdom, let us not delude ourselves with the hope that a work of grace has been commenced in us. The fruit of grace is first inward, then outward in the life. As the seed you plant in the ground quickens out of sight, so the word germinates in secret in the heart—then the blade—then the ear.

THE LARGEST FARM IN ENGLAND.

Mr. Burritt, in his new book, describes the farm of Mr. Samuel Jonas—the largest in England—most minutely. He says:

“It is doubtful if 3,000 acres of land, lying in one solid block, could be found in England better adapted for testing and rewarding the most scientific and expensive processes of agriculture than this great occupation of Mr. Jonas. Certainly, no equal space could present a less quantity of waste land, or occupy less in hedges and fences. And it is equally certain, that no estate of equal size is more highly cultivated, or yields a greater amount of production per acre. Its occupant, also, is what may be called an hereditary farmer. His father and his remote ancestors were farmers, and he, as in the case of the late Mr. Webb, has attained to his present position as an agriculturist by practical farming.

“Mr. Jonas cultivates his land on the “Four course system.” This very term indicates the degree to which English agriculture has been reduced to a precise and rigid science. It means here, that

the whole arable extent of his estate is divided equally between four great crops; or, wheat, 750 acres; barley and oats, 750; seeds and pulse, 750; and roots, 750. Now, an American farmer, in order to form an approximate idea of the amount of labor given to the growth of these crops, must remember that all these great fields of wheat, oats, barley, turnips, beans, and peas, containing in all over 2,000 acres, are hoed by hand once or twice. His cereals are all drilled in at 7 inches apart, turnips at 17. The latter are horse-hoed three or four times; and and as they are drilled on the flat, or without ridging the surface of the ground, they are crossed with a horse-hoe with eight V shaped blades. This operation leaves the young plants in bunches, which are singled out by a troop of children. One hand-hoeing and two or three more horse-hoeings finish the labor given to their cultivation. It is remarkable what mechanical skill is brought to bear upon these operations. In the first place, the plow cuts a furrow as straight and even as if it were turned by machinery. A kind of *esprit de corps* animates the plowmen to a vigorous ambition in the work. They are trained to it with as much singleness of purpose as the smiths of Sheffield are to the forging of penknife blades. On a large estate like that occupied by Mr. Jonas, they constitute an order, not of Odd Fellows, but of Straight Furrowmen, and are jealous of the distinction. When the ground is well prepared, and made as soft, smooth, and even as a garden, the drilling process is performed with a judgment of the eye and skill of hand more marvelous still. The straightness of the lines of verdure which, in a few weeks, mark the tracks of the seed-tubes, is surprising. They are drawn and graded with such precision that, when the plants are at a certain height, a horse-hoe, with eight blades, each wide enough to cut the whole intervening space between two rows, is passed, hoeing four or five drills at once. Of course, if the lines of the drill and hoe did not exactly correspond with each other, whole rows of turnips would be cut up and destroyed. I saw this process going on in a turnip field, and thought it the most skilful operation connected with agriculture that I had ever witnessed.

“A fact or two may serve an American farmer as a tangible measure whereby to estimate the extent of the operations thus conducted by one man. To come up to the standard of scientific and successful agriculture in England, it is deemed requisite that a tenant farmer, on renting an occupation, should have capital sufficient to invest ten pounds, or fifty dollars, per acre in stocking it with cattle, sheep, horses, farming implements, fertilizers, &c. Mr. Jonas, beyond a doubt, invests capital after this ratio upon the estate he tills. If so, then the total

amount appropriated to the land which he *rents* cannot be less than £30,000, or nearly 150,000 dollars. The inventory of his live stock, taken at last Michaelmas, resulted in these figures: sheep, £6,481; horses, £2,487; bullocks, £2,218; pigs, £452; making a grand total of £11,638. Every animal bred on the estate is fattened, but by no means with the grain and roots grown upon it. The outlay for oil-cake and corn purchased for feeding, amounts to about £4,000 per annum. Another heavy expenditure is about £1,700 yearly for artificial fertilizers, consisting of guano and blood-manure. Mr. Jonas is one of the directors of the company formed for the manufacture of the latter.

"The whole income of the establishment is realised from two sources—meat and grain. And this is the distinguishing characteristic of English farming generally. Not a pound of hay, straw or roots is sold off the estate. Indeed, this is usually prohibited by the conditions of the contract with the landlord. So completely has Mr. Jonas adhered to this rule, that he could not give me the market price of hay, straw or turnips per tun, as he had never sold any, and was not in the habit of noticing the market quotations of these products. I was surprised at one fact which I learned in connection with his economy. He keeps about 170 bullocks; buying in October and selling in May. Now, it would occasion an American farmer some wonderment to be told that this great herd of cattle is fed and fattened almost entirely for the manure they make. It is doubtful if the difference between the cost and selling price averages £3, or ten dollars per head. For instance, the bullocks bought in will average £13 or £14. A ton of bruised cake and some meal are given to each beast before it is sent to market, costing from £10 to £12. When sold, the bullocks average £24 or £25. Thus the cake and the meal equal the whole difference between the buying and selling price, so that all the roots, chaff and attendance go entirely to the account of manure. These three items, together with the value of pasturage for the months the cattle may lie in the fields, from October to May inclusive, could hardly amount to less than £5 per beast, which, for 170, would be £850. Then £1,700 are paid annually for guano and artificial manures. Now add the value of the wheat, oat and barley straw grown on 1,500 acres, and mostly thrown into the barn-yards or used as bedding for the stables, and you have one great division of the fertilizing department of Chrishall Grange. The amount of these three items cannot be less than £3,000. Then there is another source of fertilisation nearly as productive and valuable. Upwards of 3,000 sheep are kept on the estate, of which 1,200 are breeding ewes. These are folded, acre by acre, on turnips,

cole or trefoil, and those fattened for the market are fed with oil-cake in the field. The locusts of Egypt could not have left the earth barer of verdure than these sheep do the successive patches of roots in which they are penned for twenty-four or forty-eight hours, nor could any other process fertilize the land more thoroughly and cheaply. Then 76 horses and 200 fattening hogs add their contingent to the manurial expenditure and production of the establishment. Thus the fertilizing material applied to the estate cannot amount to less than £5,000, or 24,900 dollars per annum.

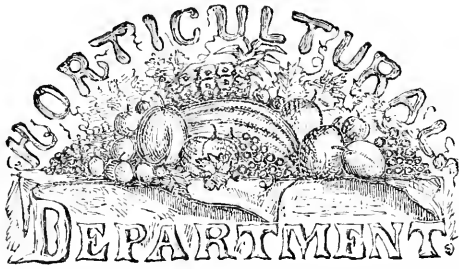
"Sheep are the most facile and fertile source of nett income on the estate. Indeed, nearly all the profit on the production of meat is realized from them. Most of those I saw were Southdowns and Hampshires, pure or crossed, with here and there a Leicester. After being well fattened, they fetch in the market about double the price paid for them as stock sheep. About 2,000, thus fattened, including lambs, are sold yearly. They probably average about £2, or ten dollars per head; thus amounting to the nice little sum of £4,000 a year, as one of the sources of income."

SUGGESTIONS TO GROWERS OF "YE WEED."

WE have not forgotten that numerous correspondents have made inquiries concerning the culture and management of tobacco plants. Those interested will give their attention to the following hints from *The Maine Farmer* appropriate to the season:

One of the essentials of the successful culture of tobacco—as indeed it is of all other crops—is a fine, mellow soil. During the early stages of the growth of the plants, the soil needs to be constantly stirred, the dry earth about the plants taken away, and moist, fine soil drawn around the stalk. Weeds should be kept down, for if permitted to grow they will injure the lower leaves of the plants; and the worm, which prays upon the plants, eating through the leaves, should be carefully watched and destroyed. The tobacco worm does not make its appearance usually until about the first week of July.

We saw several beds of tobacco plants last season which were worthless, simply because, not understanding how to manage them, the main stalk had been allowed to grow, and the leaves were as unfit for use as those of the mullein. *Topping* or cutting off the main stalk should be performed as soon as the blossoms appear, taking off about seven of the top leave with the stalk, leaving from nine to fifteen leaves, according to the strength of the plant. The top of the stalk can be removed with the thumb and finger nails. All that is requisite after this until the plant is fit to cut, is to keep it from being eaten by worms, and pull out the suckers that grow out at the junction of the leaves to the stalk. These suckers put forth only twice at the leaves, but after that indefinitely and continually from the root; and it is thought injudicious ever to let them get more than a week old, for besides absorbing the nutriment necessary to push forward and increase the size and thickness of the leaf, the breaking them off when of a large size makes so great a wound as greatly to injure the after-growth of the plant.



GARDEN WORK FOR JULY.

Now is the season of danger to the garden! Harvest and haying are crowding upon the farmer, taxing his energies to the utmost, requiring all the labor he can command. The artisan, whose usual labor is in the work-shop, feels too much enervated by the heat of the day to spend his accustomed hour after tea hoeing and weeding in the garden. The amateur finds it no longer a work of *love* to dig under a broiling July sun. The consequence is, the garden that has been kept neat and clean up to this period, is very liable to become overrun with weeds.

It is folly to give up the battle when so near Richmond, because new obstacles interpose. A little more courage—a little more persistence, and the day is ours.

Asparagus—Has now given place to green peas. If the bed is covered over with grass, give it a shallow hoeing, and stimulate it after its exhaustion with a light dressing of bone-dust, or any fine manure.

Beets—Although rather late, the Early Blood Turnip beet may yet be sown for winter use.

Beans.—The early sorts may be sown the first of the month for string-beans, or to be used with green corn, making that delectable dish called succotash—a name which will revive in many a Yankee memories both pleasant and painful—pleasant in view of the gustatory delight it afforded—painful in view of the effects of indigestion, from over-eating.

Cabbages.—Transplant to fill up any vacancies occasioned by the removal of early vegetables.

Celery—May be transplanted into trenches all this month. Don't be afraid of getting the trenches too rich, and if dry water freely and hoe often.

Carrots.—The Early Horn may be sown early in the month with a fair chance of maturing.

Cucumbers.—There is yet time to sow for pickles. Old hills destroyed by bugs may be resown.

Melons.—Hurry them forward by the free use of water or liquid manure. The melon is peculiarly adapted to the system in hot weather—but if neglected it hardly ripens in this latitude until hot weather is past.

Peas.—I suppose that most of my readers were

able to eat a dish of green peas from their vines by the middle of June. As soon as they are through bearing, the vines should be gathered and threshed. The peas are not suitable for seed, as they are generally the *cullens* of the patch, but are valuable for feed for swine, or any other animal that will eat them.

Potatoes.—Should receive their last hoeing before falling over. If weeds afterward come up, they should be pulled up by hand. In digging new ones for the table, select the hills having the fewest and largest stalks, as they contain the largest potatoes. It is wasteful to dig them before they are full grown.

Tomatoes.—This greatest luxury of the garden will begin to ripen about Rochester the latter part of July. To hasten their maturity, cut back the leading shoots to let in the sun and throw the sap into the fruit.

Turnips.—Sow 'the early part of the month the Ruta-baga and Yellow Aberdeen, the White Flat and Red-top Strap-leaf the latter part. They may be sown in drills fifteen inches, or the latter two broadcast.

Strawberries.—Will be through bearing the latter part of the month, and will be benefited by a dressing of fine manure.

Grapes.—Keep them growing, thinning out superfluous shoots and reducing the number of bunches.

The season with me has been about as forward as usual, the frequent rains not affecting my light sandy soil as they did the heavier one of the Editor of the *Farmer*. I was obliged to stop work, of course, while it was raining, but resumed it almost immediately when it ceased. Still I would prefer not to work even sandy soils until they have dried off some.

May was unusually warm this season, but June is rather cold. I have now, the 16th, green peas well filled, and cucumbers, started on sods in hot-beds, nearly large enough for pickles. Strawberries and cherries are a little behind this year. Upon the whole I think we have the promise of a pretty fruitful season. R.

LIME FOR THE MELON BUGS.—Are you troubled with the little striped bug on melon and other vines? and if so, what is the remedy? I have tried Scotch snuff, and was partially successful with coal-tar. Some two or three years ago a friend of mine, Dr. Johnson, of Brooklyn, patented the article, or its mode of preparation in connection with sand, so as to make the use of it simple and harmless to the plant. This has failed here, from the abundance of the bugs or their extreme greediness this season; and on the recommendation of a neighbor I have tried fine air-slaked lime, dusting it on the plants through a fine wire sieve. The lime answers better than any other article I have yet used.—E. A. SMITH, *Suffolk county, L. I.*

TREES FOR SHELTER.

EDS. GENESEE FARMER: The advantages of shelter for cattle have been pretty well discussed in your journal and other agricultural papers, and its advantages and economy, to say nothing of its humanity, are pretty generally conceded; but the advantages of shelter or protection to fruits and grains are not so well understood.

In the Western States the great drawback to successful fruit culture, especially in the prairie regions, is the strong winds. Every tree, and almost every shrub and plant, "shows which way the wind blows," and in Illinois and Southern Wisconsin practical farmers have learned the economy of planting trees for protection; but we of Michigan, having more trees than we know what to do with, have not learned the advantages we derive from them, but may yet learn that the oak grubs, which we so much hate, and so perseveringly combat, cause, in a great measure, the wide difference in the effect of winds between our State and Illinois. True, our winds come to us in winter very much modified in temperature by passing over Lake Michigan, and to this is owing the peculiar adaptation of our climate for fruit; but as to their *force* I know of nothing but our trees that prevents their being as destructive in that respect as in Illinois. Hills, mountains, buildings and high fences obstruct the force of the winds; but for some reasons, not so easily given, they are not so good a protection to fruit trees and crops as trees. If one fails to *see* why, he can hardly fail to *feel* that even a row of leafless trees in winter produces a great effect on the temperature of the air, and if *at all observing* we *feel* the truth of the statement of Boussingault, that trees in winter give off heat, while they absorb it, and cool the air in summer. It seems hardly possible that a few leafless branches should so *obstruct* the wind as to produce the great change of temperature that we feel in winter, in coming from the open prairie or plain into a section protected by trees; and thus our observation and experience, if not our theory and our reason, must convince us of the truth of Boussingault's statement. My experience in relation to winds thus far in this country is, that trees are the best protection, and that of fences, a picket or panel fence is better than a tight one, if equally high. I have this season six large thrifty peach trees, all of different varieties, that have already been out three seasons, are protected on the south from the warm spring sun, and on the west, north and east by a six feet tight board fence, and though fruit buds have set on them every season, not one has yet opened. I have one hundred and twenty-five other peach trees one year younger, twenty rods east, and the same distance south, from

a hedge two rods wide of oak grubs from eight to fifteen feet high, many of which have blossomed and have fruit on them this season.

A fact being established at variance with our previous notions, sets the thinking man to work to establish a theory, or at least he undertakes to find the *rationale* of the fact. Winds, or at least breezes, undoubtedly promote the growth of plants. They take a portion of their nutriment from the air, and of course when the air circulates they have access to more of it than when it is still. Trees and open fences do not *stop* the wind, but merely break its force. Trees not only do this, but in the heat of summer they cool the air, and in the winter warm it as it passes them. Hills, buildings and tight fences prevent the circulation of air, in a measure, and in the spring and fall frosts. They are thus often a great injury. In this State most of our new lands are covered with oak grubs or bushes, and farmers generally, as fast as they are able, dig them all out, root and branch. *Don't do it.* Leave a border on the west and north sides of one or two rods to grow up, and if your farm is over eighty rods wide east and west have another hedge or screen, but take them out clean where you plow. The oak is the very best of deciduous trees for that purpose. It does not shed its leaves until extreme cold weather, and some varieties not until spring. S. B. P.

Muskegon, Mich., June, 1864.

THE BALSAM.

THERE is no plant more beautiful than the Balsam, but very few know how to cultivate it so as to have it constantly improving instead of deteriorating. The following will enable any one, with ordinary care, to obtain the finest kinds, from those which are quite ordinary.

First, saving the seed. If your plants are very double they must be grown so early as to ensure a *second bloom*. The first and best blooms of the very double ones seldom bear seed.

If the plants show an inclination to branch, prune off the side shoots to throw the full vigor of the plant into the center stem.

Save your seed from the *center shoots only*, and as low down as possible. Never take seed from the branches (if allowed to grow), nor from the top of the middle spike.

By following this plan for three years, the plants will hardly branch at all, and you will have a glorious center spike of flowers.

Hybridizing.—Procure some of the best double Rose Balsams. Plant the colors you wish to make more double than they now are close round the rose plants, and either mix the pollen with a camel-hair pencil, or let the bees do the work. You will thus obtain handsome double colored varieties, such as

purple, scarlet, mottled, and others. The Rose Balsam has the power of increasing the *double* of the blooms of all the others.

Transplanting.—If you set out the plant very young they check very easily, and are a long time recovering. The best way is to sow the seed thinly in the hot-bed, and let the plants stand until they begin to show for flowers, and the second class of roots begin to start. Then you can remove them with a large ball of earth, and with the best possible success. You can thus select the double flowers, and save time and border room.

Bear in mind the maxim that "branch seeds will bring forth branching plants," and by sowing branching seed for two or three years, you get a *bush* instead of a handsome plant. The branches bear more seed than the center; hence they are generally saved.

You can not have the ground too rich for Balsams, provided the manure is well rotted and mixed with the soil. They care little what kind is used.

Five years of care, with these maxims before you, and you will beat all competitors who do not follow the same rules. *

FRUIT GROWERS' SOCIETY OF WESTERN NEW YORK.

THE Summer Meeting of this Society was held in this city June 22. There were not as many present as usual, and the exhibition of fruits was comparatively small.

The following subjects were discussed:

1. *What are the requisites for the successful cultivation of the strawberry in all seasons—wet, dry and otherwise?*

H. N. Langworthy—The soil should be well drained and enriched and the beds be made as deep and as fine as possible. A wet, undrained soil is not suitable.

The question was asked whether there was any profitable means of watering the strawberry in seasons of drouth like the present.

Mr. Kennedy alluded to a large market gardener near Chicago, who cultivated the strawberry very successfully on light sandy soil, by the free use of water obtained from hydrants. He obtained berries of large size and very heavy crops.

Charles Downing mentioned a similar instance in Westchester county in this State. The berries were very large and commanded a high price in New York.

Geo. Ellwanger thought that as a general rule, if the plants were set out in rows three feet apart, and the runners kept off, and the cultivator and hoe freely used through the season, there was little danger of injury from dry weather.

Mr. Moore, of Brighton, thought the short crop this season was not so much owing to the drouth

as to the cold winds in the spring blasting the blossoms.

Mr. Moody, of Lockport, said that the cold weather in January last, accompanied with such severe wind, killed the strawberry plant. Many acres had been plowed under in his neighborhood.

Mr. Hoag, of Lockport, thought strawberry plants in hills were more liable to winter-kill than when allowed to run and occupy the ground.

H. E. Hooker was of the same opinion.

2. *What is the result of another year's experience with the Russell Prolific Strawberry?*

Mr. Schuyler, of Seneca Falls, said it proved very hardy and productive. He thought that with good treatment 400 bushels per acre could be obtained. He would set them in rows two feet apart and the plants sixteen inches apart in the rows, and allow no runners to grow.

H. E. Hooker spoke of its great productiveness from what he saw of it last season. He thought it was clearly a pistilate variety and would consequently require some staminate variety to fertilize it. He thought it would fertilize more readily than its parent—the McAvoy Superior.

J. J. Thomas agreed with Mr. Hooker on these points. He also spoke of its productiveness.

Mr. Keitch, of Waterloo, spoke strongly in favor of the Russell. Admitting that it needed a fertilizer, what was easier than to set out a plant of Wilson or other staminate sort to each twenty-five plants of the Russell? This would insure a crop.

Mr. Hoag, of Lockport, thought it was very productive.

Mr. Smith, of Geneva, also spoke of its great productiveness. In quality it was hardly equal to Triomphe de Gand, but better than Wilson's Albany.

3. *What treatment should the strawberry plant receive before setting out, also how deep planted?*

H. N. Langworthy—Cut off the roots from three to four inches in length. Then, if they have been obtained from a distant nursery, dip them in clay water up to the crown. Set them in the holes as deep as you can without smothering the crown.

J. J. Thomas had made an experiment this spring. He set out some rows in the ordinary way with the roots close together in a mass, and some rows with the roots carefully spread out. It was but little more labor. The plants set out in this way did very much better than the others. The growth up to this time had been *twice as great!* He believed it would pay to do things in the best manner.

4. *What is the average period of popularity of the different highly lauded varieties of the strawberry?*

J. J. Thomas had given some attention to this subject for many years, and thought that with the exception perhaps of one in twenty, *five years was the average duration of popularity of any highly*

lauded fruit. Cultivators who pay a high price for a few plants of a new variety of fruit take good care of them for a few years and consequently obtain excellent crops. When the plants become plentiful and cheap, and get into general cultivation, they receive nothing more than ordinary care and turn out to be no better than ordinary varieties.

H. E. Hooker asked if there was any truth in the idea that varieties of plants deteriorate. Formerly he used to raise excellent crops of Hovey's Seedling strawberry, but can not do it now.

Mr. Moore—Hovey's strawberry is certainly a humbug.

Mr. Barry said at Boston the Hovey is the best variety grown. Dealers cared for no other. They would not look at a Wilson. He supposed climate and soil made the difference. It took several years to test the character of new fruits, and they ought not to be recommended till they had been fairly tried.

5. *What are the best varieties of hardy grapes for wine making?*

Mr. Moody, of Lockport, thought the Delaware would make a nice sweet wine that would suit the taste of most Americans. Old wine drinkers might require some other variety mixed with it. Had made some good wine, without sugar, from Diana.

6. *What are the best grapes for marketing?*

Mr. Hoag, of Lockport, named Hartford Prolific and Delaware as the most profitable market kinds. Concord not so profitable on account of its cracking on the way to market.

Mr. Reynolds said the Concord did not adhere well to the stem, but by wilting it a little before packing it could be sent to market in good condition, and then, on account of its fine appearance, it would sell for a high price. Had seen it sell in New York for 40 cents per pound.

7. *Which varieties are the best keepers?*

Charles Downing was called upon. He said he had never succeeded in keeping grapes.

H. N. Langworthy, who is quite successful in keeping grapes, said his method was simply to put them in boxes holding five or six pounds each, boring a few holes in the bottom and sides.

Mr. Fish had kept the Isabella till the first of April. Diana would keep better than any other kind. Concord is a poor keeper.

Mr. Ross sawed a barrel in two and nailed on a rope for a handle. These half barrels he fills with grapes and puts them up stairs in a clothes press in the center of the house where they will not freeze. He has kept Isabellas till March.

J. J. Thomas said the great point in keeping grapes was to have them well ripened before picking. If a man succeeds in keeping his grapes it is an evidence that he is a good cultivator.

8. *What soil is best adapted to the growing of grapes?*

H. N. Langworthy—All soils will grow good grapes if in good order.

Mr. Moody thought for wine, a rather heavy, well drained clayey soil was desirable.

Mr. Barry said that a few years ago it was thought that a sandy soil was best, and it was usual to select a sandy knoll for a vineyard, but now a rather stiff loamy soil is considered preferable.

9. *Which is the best recently introduced apple that has been tested and can be recommended for family use and marketing?*

Tompkins County King was named by several gentlemen, and it seemed to be the favorite of the meeting. Some of the members said it dropped from the tree, and that it should be picked ten days earlier than other winter apples.

10. *Do hogs in an apple orchard benefit the fruit by way of destroying the apple insect?*

H. N. Langworthy had kept hogs in his apple orchard for eight years and thought the fruit was as much affected with insects as ever. The larvæ of the insect which stings the fruit works its way out before the apple falls, and therefore the hogs by eating up the fruit do no good. The hogs are a nuisance in the orchard. If they would root over the ground evenly they might do some good, but they will not. They root deep holes and leave the orchard in a very unsightly and unpleasant condition. An old sow, if the branches of the trees are low, will rear up on her hind legs and shake off several bushels of fruit and then eat them up. He has known a sow shake twenty bushels from a tree!

J. J. Thomas said hogs were useful in the early part of the season by eating up the stung fruit and the larvæ of insects that were in them.

Mr. Barry concurred in this opinion, and thought that when it was not convenient to turn in hogs, the fallen fruit of all kinds, such as pears, plums, cherries, apples, &c., should be swept up and burnt, and in a few years we should by this means greatly lessen the number of insects.

11. *What is the best protection against cold winds for an amateur garden of one acre or more, to include all kinds of tree fruits, on dwarf stocks, and especially grapes, and other small fruits?*

H. N. Langworthy said if he had not time to raise hedges he would make a tight board fence six feet high round the garden. This would keep off the winds, and at the same time grape vines could be trained to them. He knew of nothing so good for grapes as a tight board fence. He would even put them inside the garden, two or three rods apart, running east and west, and train grapes to them. They would afford splendid protection for other crops and you could also raise the finest of grapes.

Mr. Fish thought they would shade the garden too much.

H. N. Langworthy—"They would shade it somewhat, but they will pay."

J. J. Thomas was in New Jersey a few days ago, and Isaac Pullen of Hightstown called his attention to the effect of a screen made by some trees left in a nursery row. They made a belt of trees, twenty feet high. You could see the beneficial effects of this belt for twenty rods or more. Mr. Pullen said the crops of all kinds were fifty per cent. better than where they were exposed to the winds.

Mr. Moody would set out Norway spruce. They cost but little, grow rapidly, and being evergreen afford protection in winter as well as in the spring and summer. You can set them out six feet high, so that you would not have long to wait for a sufficient protection. He thought if such screens were set out round our orchards and gardens we could raise peaches as successfully as when the country was new.

Mr. Barry also thought it was better to set out evergreens. The beneficial effect of such a screen was well known to every observing horticulturist.

12. *Seeing that varieties of fruit which compel good culture, are a benefit to the community, by teaching the best management, should not such as grow without culture be repudiated as retarding improvement.*

Little was said on this subject. We suppose the question was intended to combat the too prevalent idea that fruits which will bear neglect and bad treatment are to be preferred to those which require more careful culture.

RASPBERRY CULTURE.

EDS. GENESEE FARMER: Who ever saw such a crop of raspberries in a garden as they see in fence corners and partially cleared pasture-fields, where you can almost fill a pail within a range of ten feet, and where, in a few days following, you will secure a similar quantity, and so on through the season? The berries (according to their kind) are equally large as if grown in a garden and under culture, and yet, in the face of this fact, we go on year after year, at great expense and trouble, digging and hoeing, and pruning and staking, and doing all kinds of things to our garden beds, until any one can purchase twice the quantity of berries which they raise with the amount which it has cost in hard labor to raise them.

I have seen garden raspberries raised like wild raspberries, and with equal success, without expense of culture, and in ten times the amount. Let them come up and grow as they will. Keep paths cut through the beds so as to admit the gatherers easily. Never dig or disturb the roots, but every winter *manure thoroughly*. You will have five times the crop with one-fourth of the cost. Your beds may wear out in a few years, but this can be remedied by

allowing the suckers to spread as they like on one side of the bed, cutting up the old plants as they fall on the other. Your bed will thus advance about four feet each year, and you can, if you please, destroy an equal quantity on the other side. Pile on good, well-rotted manure every winter among the canes, and let the sorts be what they may, you will secure the largest, earliest and best crop to be had. They will grow so thick as to prevent winter-killing, or if necessary large sticks and poles may be put on the canes in the winter to keep them from blowing about. It is the *blowing about when frozen* that kills the canes. For appearance sake, you must of course get out as much of the old wood as possible each year. Try it in some out-of-the-way corner—but remember the manure. *

TO MAKE TREE MIGNONNETTE FOR THE HOUSE IN WINTER.—Select the finest plants, and set them separately in pots, gradually increasing the size of the pot without breaking the ball of the former potting. Never break the ball in transplanting Mignonnette. The roots are very long, and do not readily grow again. Train the plant to a single stem until three inches high, then let it branch. Keep it well watered, and take care that the soil is good. As soon as the flowers show signs of setting into seed, pluck them off singly, and others will come. As often as the seed-pods show of any size in the center of the flower, pluck them off. It does not spoil the beauty of the plant, for others come out at once. Never destroy a leaf, or gather bunches of flowers. You will, by following this plan, get quite a little tree, and the plant will last from two to three years and keep up a constant bloom. The stem will become quite woody, and not at all like Mignonnette. It is one of the prettiest house flowers that can be grown. Its fragrance is constant, and if the directions are well followed the blooms constantly increase in size. One seed-pod ripening will kill the plant. *

HYACINTHS.—Hyacinths, tulips and other flowering bulbs, should be taken up the present month, or as soon as the leaves have withered or turned yellow. Put them in an airy situation in the shade until they are quite dry. Then rub off any soil that may adhere to them and the dry, fibrous roots, and lay the bulbs, with the neck downwards, in an open basket, and hang it in an airy shed. Examine them occasionally, and if any signs of decay appear, remove the affected bulb, or it will communicate the disease to the other bulbs. If it is not more than a small blotch, cut it out with a knife, and put the bulb in a dry place by itself.

Set them out again in October.

The young bulbs formed the present season should be treated in the same way. If planted in rich soil, and not allowed to flower for a year or two, they will make large bulbs.

Young People's Page.

EDS. GENESEE FARMER: We have been trying, during some of the rainy evenings this spring, a game which was new to us. We learned it from a friend who has been staying with us from the city. It seems very simple, but is quite interesting. Take any word and make as many others out of it as possible, not using all the letters unless you choose. I send you a list of words that we have made to-day out of "Enlargement." Will some of your readers try to add some more to our list, and if they succeed in making any more out of another word, let us know through your columns.

M. M. W.

At.	Gnarl.	Mental.
Ate.	Glen.	Malt.
Are.	Gentle.	Mere.
Art.	Galen.	Mat.
An.	Gent.	Mare.
Am.	Gem.	Man.
Ale.	Glare.	Melt.
Age.	Large.	Mantle.
Arm.	Late.	Magnet.
Anger.	Lear.	Neat.
Amen.	Leer.	Net.
Angel.	Lament.	Near.
Agent.	Let.	Name.
Agree.	Lent.	Nag.
Alter.	Lanc.	Rat.
Altar.	Lame.	Rig.
Agreement.	Leg.	Rent.
Elegant.	Lag.	Remnant.
Element.	Lee.	Rage.
Eagle.	Learn.	Real.
Eel.	Leman.	Recl.
Eat.	Lean.	Raw.
Ear.	Lantern.	Rant.
Earn.	Lenten.	Ream.
Eager.	Manger.	Rate.
Eaten.	Meager.	Tear.
Enamel.	Mean.	Tea.
Emerge.	Merge.	Tar.
Enlarge.	Male.	Tan.
Engage.	Mate.	Tale.
Entangle.	Mart.	Team.
Great.	Men.	Team.
General.	Met.	Tame.
Grant.	Meat.	Tamer.
Grate.	Meant.	Ten.
Game.	Mangle.	Tag.
Garment.	Mane.	Term.
Gate.	Meter.	Tent.
Gear.	Mange.	Time.
Gnat.	Metal.	Tangle.

CAREFULNESS NOT MEANNESS.—To be careful is not to be mean. Meanness is a vice and impolite, not less than prodigality and carelessness. The proverb well says that "The penny soul never came to two pence." Generosity and liberality prove the best policy. Looking at the most conspicuous examples of men who have raised themselves from an humble position to affluence and eminence, we find that they have generally been liberal men—men whose conduct has been as remote from meanness and shabbiness as carelessness and prodigality.

Why are people born deaf the most virtuous of human beings? Because they never err'd (heard).

When did Moses sleep five in a bed? When he slept with his fore-fathers.

"DOLLY MAY."

[From the New York Independent.]

I've a darling little Dolly, and her eyes are black as sloes;
She lounges on the sofa night and day,
And never cares a hawbee for the mending of her clo'es,
Nor quarrels with the children at their play.
Oh! my bonny Dolly May! how I love you all the day;
How I prattle to and kiss you! none the less
That I can but feel the lack when you never kiss me back,
Nor carelessly return my caress.

Though my Dolly is a beauty, she is neither proud nor vain;
Will never, like Miss Shallow, put on airs,
But a quiet little lady will evermore remain,
Undisturbed by our troubles or our cares.
Oh! my darling Dolly May is the sharer of my play,
And her eyes seem to watch me as they roll,
Like a living baby's eyes, with a questioning surprise,
Till it seems as if Dolly had a soul.

She is older than her mother! Funny, isn't it? and queer?
But she never disobeys me though 'tis so.
Never pouts when I reprove her, nor squeezes out a tear
With her knuckles, like some little girls you know.
Oh! my pretty Dolly May, I shall sorrow for the day
When the fancies of my childhood are o'er,
And the crabbed Mrs. Grundy says, "Oh, fie! you musn't play,
Such a lady! with your Dolly any more."

THE LITTLE BOASTER.

WALTER THORNDIKE was a little boy who was never satisfied with telling a straight-forward story. He was always obliged to invent a little to add to it, so that it might sound rather more wonderful. For instance, if he passed through a field in which there were one or two cows feeding, he would come home and say, "O mother! I came through a whole herd of cattle this morning, and there did not one of them touch me!"

Thus you see he told a story which was almost entirely untrue, although he only meant to make his mother think he was a very brave boy, and I dare say he would have been very much displeased if any one had told him that he had told a falsehood.

His parents tried in a great many ways to cure him of this bad habit, but they did not succeed very well. One day, however, his father had given his elder brother Johnny some work to do out in the barn. It was to sort over a large box of nails, laying the different kinds in separate piles. "I think, Johnny," said his father, "that you can get it done in an hour, if you keep on steadily."

"O father!" cried Walter, "I wish you had told me to do it instead. I could do it in ten minutes, I know." "Very well," said Mr. Thorndike, "you shall do it; but if it is not all done in ten minutes, I shall not take you with me to your grandfather's, to spend the day, as I expected to."

Of course Walter could not finish the nails in so short a time, and so he lost his pleasant visit. For a long time after that, whenever he wished to exaggerate a little, he remembered his disappointment, and only said what was actually true.

My first is a dirty little brute;
My second's at the end o'n't;
My whole, like many an honest man,
Is on a fool dependent. Pig tail.

We hear of the mother of pearl. Who was the father? The venerable Bede.

If you should plant the figure four, what vine would come up? I. V. (Ivy.)

Ladies' Department.

Mrs. Stowe, in her "House and Home Papers," in speaking of the habits of our grandmothers, paints a picture which is so attractive that one is half inclined to save the two dollars a week now given to a cook and spend it for books, and try to become as healthy and intelligent as the dignified Puritan ladies, who made New England and indeed the United States what it is:

"There were to be seen families of daughters, handsome, strong females, rising each day to their in-door work with cheerful alertness—one to sweep the room, another to make the fire, while a third prepared the breakfast for the father and brothers who were going out to manly labor; and they chatted meanwhile of books, studies, embroidery, discussed the last new poem, or some historical topic started by graver reading, or perhaps a rural ball that was to come off the next week. They spun with the book tied to the distaff; they wove; they did all manner of fine needle-work; they made lace, painted flowers, and, in short, in the boundless consciousness of activity, invention, and perfect health, set themselves to any work they had ever read or thought of. A bride in those days was married with sheets and table-cloths of her own weaving, with counterpanes and toilet-covers wrought in divers embroidery by her own and her sisters' hands. The amount of fancy-work done in our days by girls who have nothing else to do will not equal what was done by these, who performed besides, among them, the whole work of the family."

Further on Mrs. Stowe speaks of the working of this system in our days, and says truly:

"I will venture to say that there are at least, to speak very moderately, a hundred houses where these humble lines will be read and discussed, where there are no servants except the ladies of the household. I will venture to say, also, that these households, many of them, are not inferior in the air of cultivation and refined elegance to many which are conducted by the ministrations of domestics. I will venture to assert, furthermore, that these same ladies who live thus, find quite as much time for reading, letter-writing, drawing, and fancy-work, as the women of families otherwise arranged. I am quite certain that they would be found on an average to be in the enjoyment of better health, and more of that sense of capability and vitality which gives one confidence in one's ability to look into life and meet it with cheerful courage, than three-quarters of the women who keep servants—and that on the whole their domestic establishment is regulated more exactly to their mind, their food prepared and served more to their taste. And yet, with all this, I will *not* venture to assert that they are satisfied with this way of living, and that they would not change it forthwith, if they could. They have a secret feeling all the while that they are being abused, that they are working harder than they ought to, and that women who live in their houses like boarders, who have only to speak and it is done, are the truly enviable ones.

"There, after all, is the rub. A want of hardy self-

belief and self-respect—an unwillingness to face with dignity the actual facts and necessities of our situation in life—this, after all, is the worst and most dangerous feature of the case.

"I fancy now, my friends, whom I have in my eye. You are three happy women together. You are all so well that you know not how it feels to be sick. You are used to early rising, and would not lie in bed, if you could. Long years of practice have made you familiar with the shortest, neatest, most expeditious method of doing every household office, so that really for the greater part of the time in your house there seems to a looker-on to be nothing to do. You rise in the morning and despatch your husband, father, and brothers to the farm or wood-lot; you go sociably about chatting with each other, while you skim the milk, make the butter, turn the cheeses. The forenoon is long; it's ten to one that all the so-called morning work is over, and you have leisure for an hour's sewing or reading before it is time to start the dinner preparations. By two o'clock your house-work is done, and you have the long afternoon for books, needle-work or drawing—for perhaps there is among you one with a gift at her pencil. Perhaps one of you reads aloud while the others sew, and you manage in that way to keep up with a great deal of reading. I see on your book-shelves Prescott, Macaulay, Irving, besides the lighter fry of poems and novels, and, if I mistake not, the friendly covers of the 'Atlantia.' When you have company, you invite Mrs. Smith or Brown or Jones to tea; you have no trouble; they come early, with their knitting or sewing; your particular crouy sits with you by your polished stove while you watch the baking of those light biscuits and tea-rusks for which you are so famous, and Mrs. Somebody-else chats with your sister, who is spreading the table with your best china in the best room. When tea is over, there is plenty of volunteering to help you wash your pretty India tea-cups, and get them back into the cupboard. There is no special fatigue or exertion in all this, though you have taken down the best things and put them back, because you have done all without anxiety or effort, among those who would do precisely the same, if you were their visitors.

"But now comes down the pretty Mrs. Simmons and her pretty daughter to spend a week with you, and forthwith you are troubled. Your youngest, Fanny, visited them in New York last fall, and tells you of their cook and chambermaid, and the servant in white gloves that waits on table. You say in your soul, 'What shall we do? they never can be contented to live as we do; how shall we manage?' And now you long for servants."

Mrs. Stowe goes on to say most truthfully that it is all this that the city lady has come to see—that those who are never required to work at home are the very guests who are most willing to join in any of the light household labor done by the ladies of the house where they are staying.

"Anything that is not in the least like her own home and ways of living will be a blessed relief and change to Mrs. Simmons. Your clean, quiet house, your deli-

cate cookery, your cheerful morning tasks, if you will let her follow you about, and sit and talk with you while you are at your work, will all seem a pleasant contrast to her own life. Of course, if it came to the case of offering to change lots in life, she would not do it; but very likely she *thinks* she would, and sighs over and pities herself, and thinks sentimentally how fortunate you are, how snugly and securely you live, and wishes she were as untrammelled and independent as you. And she is more than half right; for, with her helpless habits, her utter ignorance of the simplest facts concerning the reciprocal relations of milk, eggs, butter, saleratus, soda and yeast, she is completely the victim and slave of the person she pretends to rule."

We commend this entire series of papers to all house-keepers, and to all who anticipate assuming the burdens and pleasures of that position. They are being published in the *Atlantic Monthly*.

ORIGINAL DOMESTIC RECEIPTS.

Contributed to the Genesee Farmer.

APPLE MERINGUE.—This is a simple dish, but very attractive looking and very pleasant to eat. Take some stewed apple which has been carefully prepared and is entirely free from lumps. It must be strained through a cullender, if necessary. Put it into a pudding-dish; beat up the whites of two eggs, with not quite as much sugar as you use for frosting; heap this upon the apple; let it stand in a cool oven long enough to become slightly brown. The apple may be flavored with lemon, wine or cinnamon. Any other fruit may be used. This kind of frosting is often put on lemon and other pies which have no upper crust.

A LADY has given us some raspberry vinegar made from the receipt published in the July number of the *Farmer* for 1862, and it is so very nice that we republish it, hoping that others will enjoy this refreshing beverage as we have done:

RASPBERRY VINEGAR.—Take three or four quarts of raspberries, put them in a stone crock and cover them with vinegar. Let them stand twenty-four hours. Then strain this juice through a jelly-bag and pour it on to fresh berries, letting this stand another day. Repeat this process until you have the quantity you desire. Add to each pint of juice one pound of sugar. Put it into a preserving kettle and allow it to heat sufficiently to melt the sugar. When it is cold, put it into bottles. It will keep for several years.

TO CLEAN SILK.—A quarter of a pound of soft soap, one ounce of honey, one pint of gin. Put on with a flannel, or nail-brush, and afterwards brush with cold water, then dip in cold water five or six times and hang out to drain, then iron (*wet* on the wrong side) with a hot iron.

TO EXTRACT GREASE FROM SILK.—Wet the part with eau de cologne, and gently rub the silk upon itself between the hands. When dry the grease will disappear. This will also remove recent paint and the grease from a wax-candle.

TURTLE BEAN SOUP.—Please publish or give me your receipt for making soup from those turtle soup-beans you were so kind as to give me. I raised quite a lot, but my folks do not know how to use them and pronounced them "no go," as I am confident erroneously; but we need instruction.—J. DORR, *Scottsville, N. Y.*

We give in answer to the above a receipt which we published two years since; but we think that the soup is much better when the beans are added to a plain meat soup made of beef and veal. The wine, the force meat-balls and the lemon are pleasant additions, but not at all necessary. It sometimes happens that the beans do not become soft in cooking. If they continue quite hard and will not pass through the cullender, they can be put into boiling water and cooked for fifteen or twenty minutes and again strained. It is very important that they should be soaked at least twelve hours. There is no soup as good, which is as easily made as this. Many make it quite thick, like common bean or pea soup; but we prefer it thin and clear. A little tomato catsup gives a very good flavor, but plenty of salt and pepper must be used to make it taste as it should. We asked a lady who has made it very frequently, and always succeeds with it, what her receipt was. She gave the same directions that we have given for preparing the beans and making the stock, and added: "Put in a little thyme, a little celery, a good deal of pepper and salt—anything you like, only make it taste good." The following is the receipt above referred to:

TURTLE BEAN SOUP WITHOUT MEAT.—Take any quantity that you wish of black beans; boil them in water until thoroughly cooked; then dip the beans out of the pot and press them through a cullender; return the flour of the beans thus pressed into the pot in which they were boiled; tie up in a cloth some thyme; put it into the soup and let it boil; add a little butter, and season with salt, pepper, parsley and sweet marjoram; make some force meat-balls; add them to the soup, together with a sliced lemon, and wine to your taste a short time before serving. This will approach so near in flavor to the real turtle soup that few would be able to distinguish the difference. The beans must be soaked over night.

STRAWBERRIES.—If you are content to have finely flavored preserves, but the color poor, you can put up strawberries with scarcely any sugar, and in the same way that you do peaches. But it is very rarely that any one succeeds in preserving both color and flavor, except by preserving them with at least three-quarters of a pound of sugar to a pound of the fruit, and then they must be put into the cans while hot and hermetically sealed. At the present price of sugar, almost every one will give up the old-fashioned rich but often flavorless preserves, and use only canned fruit; and strawberries, if carefully attended to, will keep very well put up in this way.

CYANIDE OF POTASSIUM.—This article will be found infallible in removing stains from any kind of white cloth. A distinguished chemist in the city of New York says that he has never found any stains that can not be removed by its application. Cover a small quantity of it with tepid water, and apply it to the stain immediately. It will even remove indelible ink.

BREAKFAST ROLLS.—Two pounds of flour, one-quarter of a pound of butter, three potatoes, one gill of yeast, and a little salt. Let them rise all night.

Miscellaneous.

BOTH SIDES.

A man in his carriage was riding along,
A dandy-dressed wife by his side;
In satins and laces she looked like a queen,
And he like a king in his pride.

A wood-sawyer stood on the street as they passed,
The carriage and couple he eyed.
And said, as he worked with his saw on a log,
"I wish I was rich and could ride."

The man in his carriage remarked to his wife,
"One thing I would give if I could—
I would give all my wealth for the strength and the health
Of the man who is sawing the wood."

AN OFFICIAL DISPATCH.—A Germantown man lately posted the following notice in his house:

HEADQUARTERS, HOUSE OF —.
General Order No. 1.—JULIA: Until the price falls, no more butter will be used in our family. JAMES.

He had hardly reached his counting-house, when a special messenger handed him this:

JAMES: Until butter is reinstated, no more tobacco will be used in this house. JULIA, Chief-of-Staff.

Chief-of-Staff won.

PUNCTUATION, or the putting the stops in the right places, can not be too sedulously studied. We lately read, in a country paper, the following startling account of Lord Palmerston's appearance in the House of Commons: "Lord Palmerston then entered on his head, a white hat upon his feet, large but well-polished boots upon his brow, a dark cloud in his hand, his faithful walking-stick in his eye, a menacing glare saying nothing. He sat down."—*Punch*.

THE attention of a little girl having been called to a rose-bush, on whose topmost stem the oldest rose was fading, whilst below and around it three beautiful crimson buds were just unfolding their charms, she at once and artlessly exclaimed: "See, Willie, these little buds have just awakened in time to kiss their mother before she dies!"

SOME years ago a person requested permission of the Bishop of Salisbury to fly from the top of the spire of that cathedral. The good Bishop, with an anxious concern for the man's spiritual as well as his temporal safety, told him that he was very welcome to fly to the church, but he would encourage no man to fly from it!"

HANDEL, the great composer, was also a great glutton. He would often order dinner for three; he would then ring for the waiter, and would ask him, "Is de dinner retty?" "Yes, sir, as soon as the company comes." "Den bring me dinneer," he would say; "I am te company."

A SUREWED little fellow, who had just begun to read Latin, astonished his master by the following translations: *Viv*, a man; *gin*, a trap—Virgin, a man-trap."

IN a discussion with a temperance lecturer, a toper asked: "If water rots your boots, what effect must it have upon the coat of your stomach?"

AN INGENIOUS CAT.—In Le Nord it is related that cook was recently greatly perplexed by the disappearance day after day of a cutlet or steak from the kitchen table when she was preparing the dinner. In each day's tale there was a deficiency of one. At last it occurred to her that as the bell was rung every day while she was preparing dinner, and when she went to the door there was nobody, there must be some connection between the two occurrences. Once this idea had entered her mind, she determined to satisfy herself upon the point. The bell rang at the usual time but instead of answering it she hid herself in a cupboard. She had hardly done so before a cat rushed into the kitchen, sprung on the table, seized a cutlet in his mouth, and vanished. Her mistress was made acquainted with this felonious act on the part of the animal and it was determined to set a watch to see how it had been trained to this mode of robbery. The discovery was soon made. At the usual time, when the cook had her dishes arranged for the stove, the concealed watcher saw the cat creep stealthily towards the bell-wire, hook her claws in it, give it a furious pull, and then rush away kitchenward.

A COXCOMB, talking of the transmigration of souls, said: "In the time of Moses, I have no doubt I was a golden calf." "Very likely," replied a lady; "time has robbed you of nothing but the gilding."

AN author of a love story, in describing his heroine, says: "Innocence dwells in the dark clusters of her hair." An unkind reviewer suggests that a fine-tooth comb would bring it out.

SOMEBODY thinks that if nature had intended man to be a drunkard, he would have been constructed like a churn, so that the more he drank the more firmly he would stand.

"SALLY," said a fellow to a girl who had red hair, "keep away from me or you will set me on fire." "No danger of that," replied Sally, "you are too green to burn."

AN unromantic doctor says that tight lacing is a public benefit, inasmuch as it kills off all the foolish girls, and leaves the wise ones to grow to be women.

IF your lips would keep from slips, five things observe with care—of whom you speak, to whom you speak, and how, and when, and where.

NEVER, perhaps, are children dearer to their parents than when, as at present, the price of food and clothing is so excessive.

IF you want to kiss a pretty girl, why, kiss her—if you can. If a pretty girl wants to kiss you, why, let her—like a man.

AN Irish gentleman, while playing cards, finding the pool deficient, exclaimed: "Here's a shilling short— who put it in?"

WHY are poultry the most profitable things a farmer can keep? Because for every grain they give a peck.



Half Volume of the Genesee Farmer.

With the present number commences a half volume of the *Genesee Farmer*. Our friends have already sent us many more new subscribers than we expected. We trust they will continue their efforts, and we should be pleased if every reader of the *Farmer* would ask his neighbors, who do not take it, to try it for half a year. The cost is merely nominal. As we said last month, our friends could send us twenty thousand additional subscribers if they would only take the matter in hand at this time. Our terms are:

Single subscribers.....	\$0 40
Five subscribers.....	1 50
Eight subscribers.....	2 00

And larger clubs at the same rate, (25 cents each.)

For sixteen subscribers at twenty-five cents each, we will send, prepaid by return mail, a copy of Miner's *Domestic Poultry Book*.

For twenty-four subscribers we will send, prepaid by return mail, a copy of Emerson & Flint's excellent work, *The Manual of Agriculture*.

Notes on the Weather from April 15th to June 16th, 1864.

As to temperature, the last half of April was 2.5° below the general average, viz., 46.7°, or being 44.2°. The hottest noon was on the 22d, viz., 66°; and the coldest was on the morning of the 28th, being 30°. The average was on the morning of the 28th, being 30°. The average of this was 43.2°, and the general average was 43.7°. This gives the same mean temperature as for April, 1863.

The water fallen was 3.23 cubic inches—above the average a little. On the 23d was our first thunder shower, at 10½ P. M., with some hail, passing chiefly north of us. We had frost on the 16th; on the 28th mud and shallow water frozen, and again on the 30th. Peaches and cherries in full blossom at Washington, D. C., on the 24th. April was not a pleasant month.

MAY began rainy, and went on so, raining thirteen days of fifteen, and giving 4.76 inches of water this half, of which 2.73 inches fell chiefly on the 14th. This was a great rain over Western New York, and has done much damage, especially in the two northwestern counties where high wind attended the rain. The quantity of water was far above the average. This storm did not extend east of the Allegany range.

The mean temperature of this half is 54°, and the general average is 53.6°; warmer than this half of May last year by nearly 3°. The hottest noon was 81° on the 6th, and this was the hottest day also, 68°. The surface wind has been much from the northeast round to the southeast.

Farming operations have been delayed by the rain, as the earth is soaking full of water. We had snow on

the morning of the 3d and the night before, an inch or more, which disappeared before noon. Grass grows rapidly; but the farmers say they are far behind in their spring work. The foliage of trees has put out rapidly in this half month.

The last half of May was pleasant and vegetation rapid. While the first half was near the average temperature of the season, the last half was five degrees higher.

General average heat of the last half.....	57.95°
Mean of the last half.....	59.54°
Mean of the month.....	58.93°
General average of the month.....	56.30°

The mean of the barometer is low—29.32 inches—and has been low all this year.

The rain of the first half of May was 6.54 inches, and in the last half 1.75 inch.

The early peach blossoms were killed by the cold of May 11th; but in the last half the other fruits blossomed abundantly, though most of the cherry and pear blossoms do not promise much.

The rapid growth of grass, wheat, rye, &c., was checked by the cold of the 28th and 29th, greatly to their benefit, as they were made firmer and stronger.

June.—Beautiful June! Yes, rather cool, people say, though the first ten days were warmer than the same of last year.

General average of the first half.....	63.14°
General mean heat.....	59.60°
Hottest noon, on 5th and 15th, less than last June.....	82.60°
Coldest morning.....	45.00°

Some white or hoar-frost on the 10th and 11th.

A Canadian's Opinion of the Genesee Farmer.

MR. WILLIAM KIEVELL, of Kincardine, C. W., in sending us the names of several new subscribers, avails himself of the occasion to say that the *Genesee Farmer* is a most welcome monthly visitor in his family, and adds: "My wife never took any interest in the garden until after I became a subscriber to the *Genesee Farmer*. This spring she planted all the seeds, and has kept the garden free from weeds, and all this cost me only fifty cents (American money,) besides the great pleasure its persual affords me. I believe if the *Genesee Farmer* found its way into every farm-house in the land, there is not one farmer out of fifty that at the end of the year who could not say that he had received a thousand fold for his money. I shall exert myself to get every one that has even a garden to become a subscriber to the *Genesee Farmer*."

These remarks are very flattering, but the number of subscribers our friend has already sent us proves his sincerity, and we tender him our best thanks, both for his good opinion of the *Farmer* and his efforts to increase its circulation and influence. The *Genesee Farmer* has always enjoyed a very extensive circulation among the best farmers of Canada West, and we trust such will always be the case. At the present time an English shilling nearly pays for one year's subscription to the *Genesee Farmer*! If the present price of paper and materials continues, we shall be compelled next year to advance our rates. We send the paper for the coming half volume at a price that barely pays the cost of paper and printing. We do so in hopes that our

friends will make a special effort to increase our circulation. If all our subscribers would for the coming two weeks take the matter in hand, they could send us ten thousand new subscribers to the present half volume of the *Farmer*.

The Markets.

The *Genesee Farmer* has always endeavored to give a full and accurate report of the markets. At the present time, however, it is useless to give quotations, as prices vary from day to day. In regard to the future, it may be well to remark that notwithstanding the high prices which at present prevail, there is little probability of any immediate reduction. The war increases the demand for all agricultural products, while at the same time it greatly lessens the supply. Our agricultural productions are so much greater than the home consumption that for the first two years of the war prices were not materially advanced. The Southern demand for corn, and other agricultural products, was cut off, and for the first year after the war commenced prices, especially at the West, were much below an average. The drouth and early frosts of last year, however, proved disastrous to the corn crop at the West, and the price of this great staple in some portions of the West is now *ten times* higher than it was three years ago!

The crop prospects throughout the great grain producing regions of the West are not flattering. The drouth in parts of Michigan, Wisconsin and Minnesota has been very severe, and the crops are suffering materially. Labor, too, is very scarce, and it is greatly to be feared that, while the demand is greater than ever, production will be far below an average.

Were there no other reasons, therefore, than the above, we should be warranted in anticipating high prices. But the premium on gold is now so great that this in itself would greatly enhance prices. We are aware that this is denied. But it seems so clear that those who take time to reflect cannot for a moment doubt it. If a bushel of American wheat will bring in England \$1.25 in gold, and this gold will buy \$2.50 of legal tender notes, it is evident that wheat will sell here for \$2.50, less the expense of sending it to England. The same is true of butter and cheese, and of everything that we export. Wheat never was lower in Europe than at the present time. Were it as high there as in 1861 it would be worth here in our currency over \$3.00 per bushel. With gold at 200, it is vain, under any circumstances, to expect low prices, but how much more so when in addition to this premium on gold we take into consideration the increased demand and diminished supply caused by the war.

— Gold is now (June 29) quoted at 240 to 250.

The State Fair.

The Premium List for the Twenty-Fourth Fair of the New York State Agricultural Society, to be held in this city on Sept. 20-23, can be had on application at the office of the *Genesee Farmer*.

Our List of Agricultural Implement Makers.

We spent much time and labor in preparing the list of some of our principal agricultural implement manufacturers in the United States and Canada, published in the June number of the *Genesee Farmer*. We think it will prove useful to our readers.

The name of Pashall Morris, of Philadelphia, Pa., was in some unaccountable manner omitted. Mr. Morris has been for many years one of the most prominent dealers and manufacturers of agricultural implements and machinery. We very much regret the omission of his name from the list.

The following errors have also been pointed out to us: Frederick Gilbert, *Morristown*, Pa., should be *Norristown*.

H. K. Parson, of Harrisburgh, Pa., should be H. K. Parsons.

Blaker, Millard & Co., Newtown, Bucks county, Pa., should be Blaker, Willard & Co.

If any other errors have occurred, we shall be happy to correct them.

Western New York Fruit Growers' Society.

THE Editor of the *Germanatown Telegraph* says he "always reads the reports of this Society with interest, as they usually embrace the experience of some of the very best fruit-growers in the country." This is true. We do not to-day know of any work on fruit culture that contains so much really valuable, practical information as is to be found in the reports of the discussions at the various meetings of the Western New York Fruit Growers' Society as published in the back volumes of the *Genesee Farmer*. Whenever we wish for any information in regard to a new fruit, or some special branch of culture, we turn to these reports, and rarely fail to find just the information we desire. We have published the reports in the *Farmer* ever since the organization of the Society.

Harvest Beer.

A CORRESPONDENT asks us to repeat the recipe for hop beer given in the last volume of the *Genesee Farmer*. We tasted this beer in Connecticut last summer, and thought it better than anything of the kind we ever before drank in this country. We give the recipe a little more in detail. For fifteen gallons of beer, the ingredients are 12 or 14 ounces of hops, 6 quarts of molasses, and 10 eggs. Put the hops in a bag and boil in three pails of water. Pour the water into a cask while hot. Then boil the hops again in two pails of more water. When this is put into the cask add the molasses. Then fill up the fifteen gallon cask with cold water. When so cool as not to scald add the ten eggs, without beating. Stop up the cask close so that there is no vent. In warm weather it is usually ready to drink in three days. In cool weather the cask should be put in a warm place. When ready for use the beer will foam and be full of life, but as it has no yeast it will never sour, at least not for several months. The cask should be a strong one. When properly made this beer will be found a healthy and pleasant beverage in warm weather.

"The Illustrated Horse Management."

Such is the title of a book just published by J. B. Lippincott & Co. It is written by Edward Mayhew, M. R. C. V. S., and the copyright is held by the American publishers. It is most beautifully printed on tinted paper, and the engravings are exquisitely finished and spirited. All who have seen the *Illustrated Horse Doctor*, by the same author, will remember how pleasant the style of the writer is. In this work there is more scope for enthusiasm, and his real love for the horse gives a charm to all he says. The illustrations of horses suffering in various ways are sometimes rather exaggerated, but the exaggeration seems to arise from a sense of the importance of the subject. Mr. Mayhew insists upon common sense and kindness as the great guides in horse management. His ideas about a proper stable are quite beyond the means of ordinary horse-owners, but he says he does not expect to see his designs at all generally carried out. He thinks stalls are an abomination, and advocates loose boxes, eighteen feet square for each horse.

He has one or two ideas which could be carried out in any stable. He says that horses love society, and should have the walls of their stalls low, with only wires above, so that the animals can "rub noses" with their neighbors, and that the feeding troughs should also be low.

Any one who takes the least interest in the horse, and even either rides or drives one, will read this book with interest and profit.

The chapters on "Grooms" and "Horse Dealers" are plain-spoken, and as they are written by one who ought to understand the peculiarities of both classes we have no doubt truthful.

Inquiries and Answers.

My cherries have fallen from the trees this season more than ever before. What is the cause, and is there any remedy?—R., *Caledonia, N. Y.*

The cherries have been stung by the curculio. There is no remedy we are acquainted with that will be of much use this season. The only thing to be done is to gather up and burn all the fallen cherries. The larvae of the insect are in the fallen fruit. If you allow them to remain on the ground they will breed a host of curculios to sting your crop next season. Let every fallen cherry be swept up and burned at once. Do the same thing with all stung fruit—apples, pears, plums, &c.—and in a few years you will be less troubled with insects.

I WANT to buy a good Railroad Horse Power Threshing Machine. I find in looking over the back numbers of the *Farmer* that there are several firms in your State who manufacture them. I should esteem it a favor if you would inform me, privately, where I should be likely to get a good one. I would send the money at once, but I do not wish to receive the same treatment your Hamilton correspondent met with in sending for the Chester White Pigs. — — —, *Ingersoll, C. W.*

Our esteemed correspondent must excuse us for publishing the above. We have little time to answer private letters. We are sorry that the conduct of one of the advertisers in the *Genesee Farmer* should lead any

of our readers to doubt the honor and respectability of others. We feel sure that you may send the money to any of the manufacturers of horse powers who advertise in the *Genesee Farmer* with the certainty of receiving honorable treatment. They are all men of integrity and of the highest respectability.

One dollar in Canada money is now equal to two in our currency, and our Canadian friends can purchase agricultural implements, nursery trees and anything else of this kind they may want at very low rates for Canadian money. Prices have advanced considerably, but the increase in price is by no means equal to the advance in gold.

SOME of our Canadian friends in forwarding subscriptions forget to send the extra twelve cents to prepay the American postage on the *Farmer*.

Special Notices.**Bradley's XL Superphosphate of Lime.**

We present the following additional testimonials of the value of Bradley's XL Superphosphate of Lime:

KEENE, N. H., December 12, 1863.

WM. L. BRADLEY, Esq.—*Dear Sir:* It is with great pleasure that I write you concerning the XL Superphosphate of Lime, which I had of you last spring. It was fully equal, if not superior, to any I have ever used, and I have no hesitation in recommending it as an article worthy the confidence of the public. It was perfectly free from all foreign substances, thereby rendering it fit to use in a machine; and there seemed to be a greater proportion of ammonia in it than I have ever found before, as shown by the odor and the rapidity of growth early in the season of all vegetables planted upon it.

I consider a good article of Superphosphate of Lime to be the one thing needed to bring our old plain lands into good condition and am satisfied that no one can afford to raise potatoes to eat without it. I have used it from various manufactories for five years, and during that time have never had rotten potatoes, but, on the contrary, they are always sound, mealy and dry, and yield well. I would say that my land is a sandy loam, and I have planted some ten or twelve varieties of potatoes, with the same result in each case. Yours, truly, THOS. E. HATCH.

HARDWICK, MASS., February 10, 1864.

TO WM. L. BRADLEY—*Dear Sir:* I purchased some of your XL Superphosphate last season and tried it for growing Indian Corn. I top-dressed an acre with barn-yard manure, and dunged one-half of it with a good shovelful of hog manure in a hill; and on the other half I put a tablespoonful of Superphosphate in the hill. The corn on the latter half, where I applied the XL, was considerably better than where I used the hog manure, and, besides, it was ten or fifteen days earlier.

FRANKLIN NEWLAND.

HARDWICK, MASS., February 11, 1864.

TO WM. L. BRADLEY—*Dear Sir:* I tried your XL Superphosphate last season in growing corn. On an acre, one-half of which raised oats and the other half potatoes the previous season, I spread twenty-seven cart-loads of green manure and plowed it in well and furrowed about three and a half feet apart both ways. I used hog manure, plaster and Superphosphate in the hill—of the latter a tablespoonful in each hill. Between the hog manure and the XL there was but little difference. Where the plaster was used there was a very marked falling off, though plaster works well on my farm.

I believe a fair trial will convince any unprejudiced mind of the great value of your XL Superphosphate of Lime. I have used Superphosphate for four consecutive years, and I am well

satisfied that it pays. I intend to use it the coming season, if I can get it, and have advised others to do so.

Among the numerous substantial and enterprising farmers of this town who used your XL last season, all speak very favorably of it, and say it has done well for them as it did for me.

Truly yours, JOHN B. WETHERELL.

For further particulars, address W. L. BRADLEY, No. 24 Broad street, Boston, Mass.

Flax Cotton--Machinery to Test the Experiment of Manufacturing Flax Cotton.--The appropriation of \$2,000 to test the practicability of manufacturing flax cotton, to be expended under the direction of the New York State Agricultural Society, is still open to competition to all who are investigating the subject. The Society desire to call the attention of the public to this subject. The committee appointed to examine applications consists of Samuel Campbell, New York Mills, chairman, John Stanton Gould, Hudson, Alfred Wild and B. P. Johnson, Albany. The committee will, on application, examine any machinery that may be presented, and the processes adopted. Notice can be given to the Secretary of the Society, or to any member of the committee, who will furnish the necessary information.

ADVERTISEMENTS.

A FEW short advertisements of interest to farmers—and only such—will be inserted in the GENESSEE FARMER at twenty-five cents a line, or \$2.50 per square, or \$25 per column, each insertion, payable in advance.

S. M. PETTENGILL & CO.,

No. 27 Park Row, New York, and 6 State street, Boston, are our Agents for the GENESSEE FARMER in those cities, and are authorized to take advertisements and subscriptions for us at our lowest rates.

The London Club Coffee.

Prepared from the Best Old Java.

TRIED and recommended by the Editor of THE INDEPENDENT.
 THE HOME JOURNAL.
 THE EVANGELIST.
 THE METHODIST.

Commended also by THE CHRISTIAN ADVOCATE, by THE BAPTIST EXAMINER, by most of the leading Editors, and by the most respectable PHYSICIANS. Nearly all prominent Journals and Professional men are using and commending

THE LONDON CLUB COFFEE.

"We have ourselves used this Coffee," says the Editor of THE INDEPENDENT, "and have no hesitation in commending it as an agreeable, healthful, and every way reliable article."

This Standard Coffee is prepared from the best old Java, and has no connection with any of the adulterations drifting about the market. It is easily distinguished from all other Coffees by its remarkable fragrance, strength and flavor.

[From Dr. Van Kleeck.]

GENTLEMEN: I have been using your Coffee in my family, and consider it superior to any I have met with. I find it to contain only the healthiest ingredients, together with a very unusual proportion of PURE JAVA COFFEE. Having recommended it extensively in my practice, I have heard but one opinion in its favor as a nutritious and healthy beverage, and well adapted to nervous temperaments. JAS. B. VAN KLEECK, M. D.,
 February 15, 1864. No. 169 Franklin-st. N. Y.

This Coffee is put up for the trade in cases of 36 lb, 60 lb, and 100 lb.

The price of the Club Coffee to the consumer ranges from 24 to 35 cents.

To the Trade a Liberal Discount. Net Cash.

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CIDER PRESS SCREWS.

FIVE FEET LONG, four inches diameter. These powerful Screws bring out a third more juice than portable presses. Send for a Circular. Made by L. M. ARNOLD,
 Poughkeepsie, (N. Y.) Foundry.

\$2 MADE FROM 20 CENTS!—Call and examine, or ten samples sent free by mail for 20 cents. Retail for \$2 by R. L. WOLCOTT, 170 Chatham Square, N. Y. my61-ly

BAUGH'S RAW BONE SUPERPHOSPHATE OF LIME.

BAUGH & SONS,

SOLE MANUFACTURERS,

Store No. 20 South Delaware Avenue,
 PHILADELPHIA.

THIS article has for many years enjoyed a high reputation as a manure of great efficiency and of unequalled permanence, and we scarcely deem it important, in our semi-annual advertisement, to say more than merely call the attention of buyers to it. But we will also state to farmers and dealers in fertilizers that it has been our constant aim to render our **Raw Bone Phosphate** more and more worthy of the full confidence of farmers, by the use of every facility at command, and the aid of scientific skill, in essentially improving its qualities, and we have never allowed this purpose to be interfered with by the great and steady advance in the cost of all matters pertaining to our business, throughout the past two years.

The price of the Phosphate, packed in either bags or barrels, is

\$60 per 2,000 lbs. (3 cents a pound, Cash).

No extra charge for bags or barrels.

The RAW BONE PHOSPHATE may be had of any regular dealer in fertilizers (to whom we advise farmers to apply), or of the manufacturers and proprietors.

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No. 20, South Delaware Avenue,

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BY a late arrival of the steamship Bremen we are put in possession of the following

FANCY STOCK FOR SALE.

3 Pair of ENGLISH PHEASANTS,.....\$25.00 per pair.
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LIGHTNING FLY-KILLER,

a neat, cheap article, easy to use. Every sheet will kill a quart.

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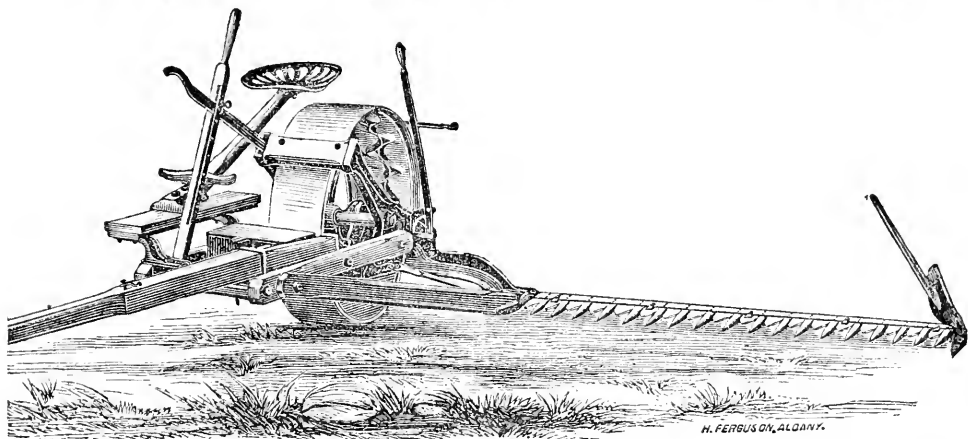
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Patented by George S. Curtis, of Chicago, Ill., February 23d, 1858, and May 31st, 1864.

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E. A. & G. R. MENEELY,
 West Troy, N. Y.

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- 2d. Ease of draft.
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Five and a half feet cut.....\$130
Five feet cut.....120

Every Machine Warranted to Perform as Represented.

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- Dog Powers for Churning, &c., &c.

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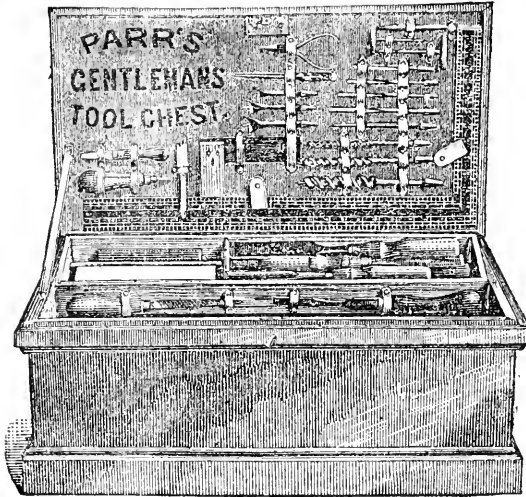
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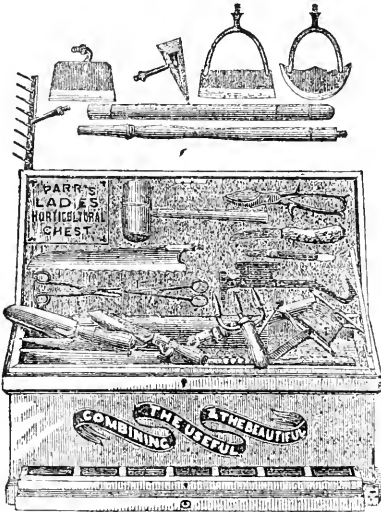
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The Illustrated Horse Management, containing descriptive remarks upon Anatomy, Medicine, Shoeing, Teeth, Food, Vices, Stables; likewise a plain account of the situation, nature, and value of the various points; together with Comments on Grooms, Dealers, Breeders, Breakers, and Trainers; also on Carriages and Harness. Embellished with more than 400 engravings from original designs made expressly for this work. By **EDW. MAYHEW, M. R. C. V. S.**, author of "The Illustrated Horse Doctor" and other works. 1 vol. 8vo.

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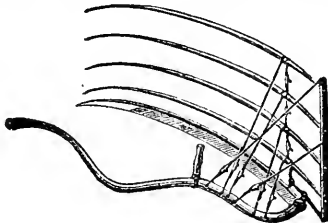
STEEL PLOWS,

STEEL CULTIVATOR TEETH,

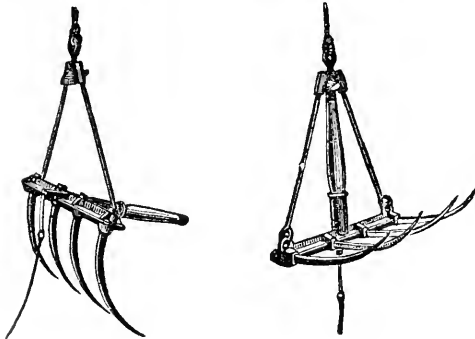
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Patent Adjustable Grain Cradle,



**MYER'S PATENT
HORSE HAY ELEVATOR,**



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PATENT HORSE POWER,**

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Agricultural Implements Generally.

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Have been lately added to our list, but have been selected from the great number and style of Implements now before the public as the best in use, and we doubt not a trial will fully justify our choice.

We have changed the iron head of the Elevator for wood, which has proved better and lighter than iron. The Horse Power has proved itself far superior to any in use. Address

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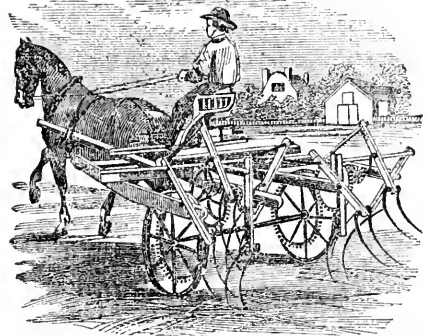
Pamphlets containing testimonials in favor of his Tobacco Fertilizer, Bradley's X L Manual on the Culture and Curing of Tobacco, with Illustrations, can be had by addressing the undersigned. **WM. L. BRADLEY.**

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TILE MACHINE.

THE BEST MACHINE IN AMERICA. Send for a Circular containing description. **A. LA TOURETTE,** Waterloo, N. Y. nov '63-ly

BULLARD'S IMPROVED



PATENT HAY TEDDER,

Or Machine for Spreading and Turning Hay.

THE subscriber having purchased the exclusive right for manufacturing and selling (for the State of New York)

Bullard's Improved Hay Tedder,

now proposes to furnish the Farmers to the extent of his ability, which must necessarily be limited the coming year, owing to the difficulty of obtaining good and competent mechanics.

Those who desire to avail themselves of one of these great labor-saving machines will please send in their orders early to be recorded in turn. "First come, first served." Address

SILAS C. HERRING, New York.

N. B.—Pamphlets and Circulars will be sent by mail to those who request them.

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Sheep Wash Tobacco.

Will not injure the most delicate animal.

Kills Ticks on Sheep.

Cures Scab on Sheep.

Kills all Vermin on Animals and Birds.

Cures all Skin Diseases on Animals.

Kills Bugs on Roses, Lice on House Plants.

Kills Canker Worm on Apple Trees.

Kills Bed Bugs and Water Roaches.

Kills all Vermin that infest Grape and Cranberry Vines.

ONE POUND OF THIS EXTRACT WILL MAKE SIXTEEN GALLONS OF WASH.

For sale by all Druggists, and at Country and Agricultural Stores.

Price, 75 cents per pound. A liberal discount to the trade and large purchasers.

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U. S. 10-40 BONDS.

These Bonds are issued under the Act of Congress of March 5th, 1864, which provides that in lieu of so much of the loan authorized by the Act of March 3d, 1863, to which this is supplementary, the Secretary of the Treasury is authorized to borrow from time to time, on the credit of the United States, not exceeding TWO HUNDRED MILLION DOLLARS during the current fiscal year, and to prepare and issue therefor Coupon and Registered Bonds of the United States; and all Bonds issued under this Act shall be EXEMPT FROM TAXATION by or under any State or municipal authority. Subscriptions to these Bonds are received in United States notes or notes of National Banks. They are TO BE REDEEMED IN COIN, at the pleasure of the Government, at any period *not less than ten nor more than forty years* from their date, and until their redemption FIVE PER CENT. INTEREST WILL BE PAID IN COIN, on Bonds of not over one hundred dollars annually, and on all other Bonds semi-annually.

The interest is payable on the first days of March and September in each year. The semi-annual Coupons are payable at those dates, and the annual Coupons on the 50 and 100-dollar Bonds are payable on the first of March.

Subscribers will receive either Registered or Coupon Bonds, as they may prefer. Registered Bonds are recorded on the books of the U. S. Treasurer, and can be transferred only on the owner's order. Coupon Bonds are payable to bearer, and are more convenient for commercial uses.

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Subscribers to this loan will have the option of having their Bonds draw interest from March 1st, by paying the accrued interest in coin—(or United States notes, or the notes of National Banks, adding fifty per cent. for premium,) or receive them drawing interest from the date of subscription and deposit.

As these Bonds are exempt from municipal or State taxation, their value is increased from one to three per cent. per annum, according to the rate of tax levies in various parts of the country.

At the present rate of premium on gold they pay over eight per cent. interest in currency, and are of equal convenience as a permanent or temporary investment.

It is believed that no securities offer so great inducements to lenders as the various descriptions of U. S. Bonds. In all other forms of indebtedness, the faith or ability of private parties or stock companies or separate communities only is pledged for payment, while for the debts of the United States the whole

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Upon the receipt of subscriptions a certificate of deposit therefor, in duplicate, will be issued, the original of which will be forwarded by the subscriber to the Secretary of the Treasury, at Washington, with a letter stating the kind (registered or coupon) and the denominations of Bonds required.

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Subscriptions will be received by the *Treasurer of the United States* at Washington, and the *Assistant Treasurers* at New York, Boston and Philadelphia, and by the First National Bank at Albany, N. Y., by the First National Bank at Buffalo, N. Y., and by all National Banks which are depositaries of public money. All respectable Banks and Bankers throughout the country will furnish further information on application, and afford every facility to subscribers. je2t



THE CELEBRATED CRAIG MICROSCOPE.—Combining Instruction with Amusement, is mailed, prepaid, for \$2.50; or with 6 beautiful Mounted Objects for \$3.25; with 24 Objects, \$5.50, by HENRY CRAIG,

150 Centre street, New York.

Also, he will mail, prepaid, the Novelty Magnifying Glass, for examining Living Insects, Seeds, Flowers, &c., for \$1.50; or with 12 beautiful Mounted Objects for \$3. je'634'

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THE WESTERN FARMER

PRACTICAL SCIENTIFIC FARMERS OWN PAPER

VOL. XXV. SECOND SERIES.

ROCHESTER, N. Y., AUGUST, 1864.

No. 8.

WALKS AND TALKS ON THE FARM.—NO. 9.

"THE oldest inhabitant" can not remember a wetter spring or a drier summer than we have experienced this year. The scarcity of labor, and the shortness of the season, render farming anything but a sinecure. Sowing oats and barley, planting corn, potatoes and beans, haying and harvesting, have all been crowded into little more than two months, and in some instances even less.

The pastures are drying up. A farmer in Riga told me to-day that his sheep were actually starving, and he was obliged to feed them hay. Sheep will get along pretty well on dried up pastures, but cows must have more succulent feed. Butter can not fail to be very scarce and high. I am giving my cows a mess of mill-feed every night and morning. I expect to get fifty cents a pound for the butter, and at this rate it will pay to feed the cows liberally.

There never was better weather for summer-fallows that were broken up early. I have broken up thirty acres, but had a rather tough time of it. It got so hard towards the last that a plow-point would not last over two days. I am now cultivating and harrowing it, and think it will tumble all to pieces, though it looks rough enough at present. This dry, hot weather will kill every weed.

Mr. Loomis told me to-day that the Canadian who took the first prize last year at the International Wheat Show for the best two bushels of White wheat, must have put a different kind of wheat on the top of the bag from what there was at the bottom! Mr. Loomis purchased the bag of wheat and sowed it. The exhibitor said it was Blue-stem, improved by selection, and sowing on very early soil. When the wheat came into ear, it was evident that the bag must have contained two kinds of wheat. A strip sown from the top of the bag was earlier than the other. It proved to be a very handsome variety of White wheat, but not Blue-stem at all. This strip was not injured by the midge. The remainder was Blue-stem, and the midge destroyed nearly the whole of it.

Mr. Loomis says there can be no doubt that there were two kinds of wheat in the bag; and that the exhibitor must have placed a peck or so of some superior variety on the top to deceive the judges!

My barley that was sown so late will turn out better than I expected. The bone-dust and superphosphate tell even in a dry season. Had it been sown early, I should have had forty bushels to the acre: as it is, I shall not have twenty. The grasshoppers are devouring it. There are millions of them. They eat off the beards, and suck the juice from the leaves and straw.

We shall have a great crop of beans. Where the land is kept clean, they stand the drouth better than any other crop.

A Dutchman, down by the railroad, told me yesterday that he raised six hundred bushels of turnips from an acre of stubble ground last year. If we have rain, I will sow an acre or two and give them a sprinkling of superphosphate. There is no manure equal to superphosphate for turnips. I have seen 300 pounds per acre double and treble the crop. Hayward says he can raise turnips for five cents a bushel, and last year he sold his crop on the ground for twenty-five cents per bushel. Every thing will be scarce and high, and this is the only crop that we have now time to sow.

My peas are all burnt up. They stood the drouth better than the barley or oats, till within a few days, but I noticed to-day that they are now withering up. There will not be half a crop.

Mr. Silas C. Herring, of New York, sent me one of his patent Hay Tedders for trial. Unfortunately my grass this year is not heavy enough to require much shaking about. However, I tried the machine as he requested, and must say that it works admirably. I have seen the English hay tedders in operation, but this American invention is much more simple and equally effective. In heavy grass, and especially in showery weather, it will prove exceedingly useful. It will do the work better and more

rapidly than six men. When I get my land all drained, and stoned, and thoroughly enriched, so as to be sure of at least two tuns of hay to the acre, I would not be without one of these tedders for double or treble their cost. Cut with a mower, shake out with a tedder, rake up with a revolving or steel-toothed rake, and unload with a horse hay-fork, and haying will be mere pastime.

The English farmers have used hay-tedding machines for nearly twenty years, and Mechi says that, in their moist climate, it is the only way to make good hay. He says that one year, when the weather was unusually wet, a friend of his secured his hay by putting four horses to his tedding machine and two postillions, and galloped them up and down the field, keeping the hay in the air pretty much all the time!

In one of his lectures before the State Agricultural Society, Dr. Fitch, in alluding to the fact that the midge did little or no damage to the wheat in 1860, but proved very disastrous in 1861, says the reason of it was that the weather in June, 1860, when the midge flies came out to deposit their eggs, was exceedingly hot and dry, while in 1861, at the same period, it was very wet and showery. He thinks that in such a season the midge can not breathe the dry, warm atmosphere, and that it is compelled to retreat to places where the air is damp and moist. He says, further: "If the last half of June is unusually dry, our wheat that year will escape injury from the midge; but if the last half of June is very wet and showery, this crop will be severely devastated."

If this be so, the midge ought not to do much damage the present season—for it has certainly been as hot and dry as anyone could desire. There is, however, a very general complaint that the midge has seriously injured the wheat crop. I do not know but that the midge dislikes a dry, warm atmosphere, but the fact that it attacks wheat in low, moist situations, while wheat on dry uplands is little injured, does not necessarily prove it. The wheat on dry uplands is earlier than that on low land, and it may well be that it is too far advanced before the fly appears, and consequently escapes injury, while that on low land, being later, is attacked. This seems to me quite as probable as that the midge flies can not breathe a dry, warm atmosphere.

I have a field of wheat this year, some portions of which escaped the midge altogether, while other portions are more or less injured, simply because, as I supposed, the land, being wet in the spring, the crop was late. I question whether the atmosphere is any less dry and warm in one part of the field than in the other. Certainly the whole field was dry enough the latter part of June.

Then again, there are numerous instances of Blue-stem wheat (which is a late variety) being injured, while Soules, and especially Mediterranean, (which are earlier varieties,) escaped, though they were all in the same field and on the same soil, and received the same treatment.

"If you ever catch me keeping pigs again, you may take out a commission of lunacy for me at once." So said an amateur farmer a few days since. It is not more than five years ago he thought pigs the most profitable stock on the farm. He built a handsome range of pig-pens, with boiler and other conveniences, at an expense of \$500, and went largely into breeding and feeding pigs. It has proved a losing business. Every dollar's worth of pork, he says, cost him ten shillings.

What he says is probably true. Pork has been low for a few years past, and it has been difficult for farmers in this section to compete with the West in fattening pigs. But now the tables are turned. Corn is nearly as high in the West as with us. Pork is higher than ever before known in this country—higher than beef—and those farmers are fortunate who have a good lot of thriving shoats on hand.

I have always contended that pigs, like poultry, can only be kept with profit so long as they are fed principally on food which would otherwise be wasted. It is a great mistake to be over-stocked, and equally unprofitable not to have any.

Last spring I cut off some pretty large limbs from an old apple orchard, and drew them into a pile on the side of the fence. To-day a Dutchman from the city came along and gave me four dollars for it. A Yankee could not be hired to chop up such stuff for firewood.

The Germans and Hollanders, with their plodding industry and economy, bid fair to become the wealthiest people we have. I am paying a Dutch-woman \$1.00 a day for hoeing, and her husband \$1.25. I think she is the "best man of the two." She always takes the lead, and makes all the bargains. To-day she wanted to know if I would let her have the old stumps on the south lot. I had supposed it would cost me \$10 an acre to get rid of them. "Me be poor," she said, "and wood is very high." I told her she was rich. (They keep a cow and a horse, and have a nice house and several acres of land under good cultivation.) "Reech!" she exclaimed, with a shake of the head, "no, no. If me were reech, me no work for you." She is rich, nevertheless—at least far better off than many who would think it a terrible hardship to burn anything but body-maple.

I hope the Germans will teach us to be more economical in the use of wood. We have too long

regarded wood as an incumbrance on the land, to be got rid of in the most expeditious manner. We do not easily realize that it is worth \$11 per cord! There are few farmers who do not waste more wood every year than they use.

Can not we afford to use *brush*? The undergrowth in the woods and branches of trees make good fire-wood, if tied up into bundles and well seasoned. This is all the wood that an English farmer uses. The wood from his old hedges is tied up into faggots with scrupulous care, and this in sections where the best coal costs less than \$2.00 per tun. Coal is now selling at \$13.00 per tun in Rochester, and they say it will be \$20.00 next winter. Now, if it will pay the English farmer to use brush, why will it not pay here where coal costs seven times as much? I have no doubt if it was tied up into bundles and taken to the city the Germans would gladly buy it.

I received a letter from John Johnston to-day, and he says if I would come and see him he would show me the effect of manure on wheat. I think it was Theodore Parker who remarked: "You say you own a garden? No, you don't; the garden owns you." I own a farm in the same sense. I own the *Genesee Farmer* in the same way. Both farm and *Farmer* own me, and they are hard task-masters! Nothing would afford me more pleasure than to visit the good farmers of Seneca county, but I can not get away. Mr. Johnston says his wheat is hurt by the midge much more than he expected. That which is late is almost ruined. That sheltered from the west and northwest is good. He says:

"I never had a better looking field of Soules wheat, but nearly a full one-half of the field is injured a third or perhaps half by the midge. I was in a neighbor's field yesterday (July 19) of Mediterranean, a very heavy crop, but very much hurt by the midge. This insect must have done immense damage in this section."

His corn keeps a good color, but he thinks the prospects of a good crop are very poor. Oats and late-sown barley are almost worthless. He has had to stable his horses for want of pasturage—a thing which he has never had to do before at this season of the year.

What he says in regard to the effect of manure on wheat is very interesting. He applied manure quite liberally on part of his wheat; another part received a lighter coat, and one acre was left without manure at all. The straw on the whole was abundant—rather too much on that best manured; *but the midge has done comparatively little damage on this portion, a great deal more damage on that less manured, and far more on that where no manure was used.*

This is just what I have always contended. If we could sufficiently enrich our land with rich manure,

(not rotted straw,) and if it was well drained and cultivated and sown at the right season, we should have no reason to apprehend much damage from the midge.

The reasons Mr. Johnston assigns for the effects above described are these: "That heaviest manured stood the winter best, came earlier forward in spring, and came in ear earlier. That manured less was a week later, and the one acre without manure was quite behind. I can have Soules wheat early enough if I only had plenty of manure of the right kind. I have contracted for eight tuns of oilcake meal to feed this winter at \$50 per tun. Were it not to make rich manure, I should not have done it." Oilcake, peas and beans make the richest of manures. Manure from a tun of oilcake, peas or beans, is worth more than that made from eight tuns of straw, or from four tuns of timothy hay, or from two tuns of corn.

"Please, may I have some cherries?" said a little girl a few minutes since. She is the first person, old or young, who has condescended to ask. It is astonishing what loose notions many people have in regard to fruit. We have about twenty cherry trees on the farm, and they have borne abundantly for the season, but I have not yet been able to get the first ripe cherry. The birds, the boys and the men pick them off before they are ripe. The men pick them off the lower branches as far as they can reach, the boys climb into the trees and clear the center, while the birds strip the topmost branches. Neither birds, boys nor men think of saying "by your leave."

I have taken special pains to raise some melons. I do not see why a farmer can not have as good melons as are raised in the city or in a country village. So far the plants are doing finely. There is every prospect of a good crop. "But," said an old resident of the neighborhood a few days since, "do you expect to eat any of the melons?" "Certainly, why not?" I replied; "there is nothing I like so much." "I guess you won't have many," he said. "Why not? I never saw melons look better. This warm, sandy slope is just the spot for them. I put a barrowful of hot horse manure under each hill, and mixed a little superphosphate with the soil, and I expect some good melons." "Well," said he with a peculiar smile, "the melons may be good, but I guess you won't get many. *The boys will be round cooking about the time they get ripe.*"

I think few things would provoke me more than to have my melons stolen by a set of vagabonds who could not appreciate them. I would shoot a man for stealing melons sooner than for stealing a horse. I do not know that I would shoot him in either case, but if I caught him in my melon patch, with a

double-barrel shot-gun in my hand, I think I should pepper his shins!

The rain is over. The barometer, which fell about half an inch previous to the rain, is now rising again, and I am afraid we shall have no more rain at present. We will be thankful for what we have. It was never more needed. It will do much good, though it has not been sufficient to reach the roots of corn and potatoes. It has penetrated on the loosest ground not more than two inches. I have just been examining the potatoes in the field. A good rain would yet be in time to save them; but the soil round the tubers (what there are) is as dry as ever. We want a good steady twenty-four hours' rain. It would be worth millions of dollars to the farmers of this State.

Mr. Collins, of Collinsville, Conn., whose farm I visited last summer, and who is one of the best farmers in the State, writes me that they had rain July 25. The drouth has been awful. The ground is dry for two or three feet deep. Grass roots are killed. The splendid lawn in front of his house he will have to plow up. Early potatoes are an entire failure. Corn for crop and for soiling drying up. Cows ditto. It will require a week's rain to thoroughly moisten the soil.

Hay was sold in the city yesterday (July 27) at \$23 per ton. I have just bought two tons of mill-feed (weighing 20 pounds per bushel) for \$27 per ton. At this price it is surely cheaper than hay at \$20. "Blessed is the man who is a producer," said a lawyer to me sometime since. Prices are high and will be higher, but what of that, if you do not produce anything! Still there is this consolation: *we have enough to eat*. I do not think I should like to live in the city and pay a shilling a quart for potatoes and fifty cents a pound for butter. Of course it is just the same in the country, but then you do not feel it so much.

"How are your turnips doing?" I asked a farmer yesterday, who sowed half an acre or so two weeks ago. "First-rate, where there are no weeds." That is the point. If you sow broadcast on weedy land, you will have plenty of weeds but few turnips. Better sow them in drills so that you can horse-hoe them. It is more trouble, but it is the only way to be sure of a good crop of turnips. If the land is right, however, I would sooner sow them broadcast than not at all. The White Stone variety can be sown as late as the middle of August.

The Deacon was telling me this morning that he has come to the conclusion that it does not pay, in the end, to feed whey to milch cows. Last fall he fed the slops of the house—whey, buttermilk, &c.—to

his cows, mixing a little meal with it at first to induce them to drink it. The cows soon became very fond of it, and eat it up as greedily as the pigs. He never had cows give so much milk, but they got thin, and after they were dry, though fed pretty well, they continued thin, and have not yet fully recovered.

The peas are nearly ready to harvest. I am told that the best way is to pull them up with the revolving wooden rake, commencing at the east side of the lot, as the peas lean in that direction. I should think it would shell more than would pay for the labor of mowing them, but mean to try it.

Will you walk into the garden? I always like to do so after a rain. A well laid out and properly cultivated garden is the pleasantest spot on earth—pleasanter even than a wood fire on the hearth in the early winter evenings! Phlox, candytuft, mignonette, verbenas, geraniums and heliotrope have done remarkably well. You can make a good bouquet out of these alone, and the more you pick the more you will have. They should not be suffered to go to seed, as it checks their blooming. I did not set out the roses till late last fall, but they have done very well.

Some of the large Norway spruces I set out this spring are dead. The small ones are doing well. It is a great mistake to set out large trees unless you are prepared to give them the greatest attention.

The raspberries I set out last spring have not done well. It has been too dry for them. They have thrown up few if any suckers, and there will be no fruit next year. If we have rain sufficient I will get a quantity of green suckers and set them out now. They will transplant as easily as cabbage, and will do better this way, I think, than any other. As I want fruit next year, if possible, I will plant four suckers in each hill.

These dwarf apples, set out last spring, along the walks, all lived and are growing finely. They are quite an ornament to the garden.

The cut-worm has eaten off, just above the ground, quite a number of string-beans, but they have not touched the Limas. I can not catch the rascals—perhaps I am not up early enough in the morning.

Tomatoes are growing splendidly. If I had time, I would nip off every shoot two or three leaves above the clusters, and pinch off all the lateral shoots.

My onions are a failure. I think the seed must have been bad. The Doctor says he got his seed from a farmer who raised it himself, and he has a fine crop. I shall be more particular another year who I get seed from. I am drilling in some turnip seed in the vacant spots.

FARMERS SHOULD VISIT MORE.

AMERICAN farmers work too hard. Our seasons are so short, help so scarce, and there is so much to do, that it is almost impossible to find time to attend to mental improvement, and the cultivation of social feelings. "All work and no play makes Jack a dull boy." It is so with those who have attained to riper years. We all need relaxation, and we all take it one way or another. Would it not be well to find it by visiting a little more among our brother farmers? Do not make formal visits. Get into your buggy some evening before dark and take your wife to visit some good farmer friend. Talk over your agricultural plans and prospects. Look at the crops and the stock, and you will be almost sure to get some hint that will prove useful.

If you see anything particularly good, say so. It will encourage your friend and stimulate him to renewed exertions. If your own crops are better than his you will feel none the worse for knowing the fact. Don't gossip. Leave that to those who have nothing better than personalities to talk about. Don't stay too long. Don't bore your friend, or let him bore you. Be cheerful and pleasant. Return home early, and you will be astonished with how much more spirit you will go to work the next morning. Things which had depressed you for days and weeks will put on a different aspect. We can all accomplish much more than we do if we only thought so, and had courage to go systematically to work. A little relaxation, a conversation with one who has the same trials and labors, gives us new courage, and we attempt and accomplish with ease things which before oppressed us with their magnitude.

This is not mere theory. We have felt the beneficial influence of a visit to a neighboring farm. The other evening, though hardly knowing "which thing to do first," we rode up to our good farmer friend A. about two miles west of us. We found him examining a piece of turnips recently sown. Dry as was the weather, they were just coming up. He had sowed them broadcast, and we jokingly told him that was not the way to raise Swede turnips. "Well, I don't know," he replied, which, being interpreted, means, "I guess I shall raise as good as you will." "Come and look at my wheat." It is a fine field of "weevil proof," ripening for the harvest. He thought it would grow thirty bushels per acre, and sitting there on the fence we figured up how much it would bring at twenty shillings per bushel, and discussed the probabilities of getting three dollars. He is an old farmer and a very successful one. Has brought up and educated a large family, and has everything round his house that is convenient and comfortable. We particularly admired a large

handsome walnut tree that stands over his well at the side door towards the barn-yard. "I brought the nut of that tree," he said, "thirty years ago in my pocket from the borders of Conesus Lake." It is now a noble tree, pleasant to behold and affording grateful shade, and as we looked at it we could not help thinking how many pleasing associations of the past thirty years must linger around that tree. A boy was pumping water for the cows which had just been milked. "I used to have an open trough to carry the water," he said, "but five or six years ago I sawed a barrel in two and put the two halves in the ground, one near the pump and the other in the barn-yard, and connected them with an old pump log." The one barrel near the pump and the connecting pipe are under ground. The water never freezes, and he can at all times supply his stock with little trouble.

"Come and see the garden." What splendid corn, and how much finer your beets are than ours! Having more tomato plants than we needed this spring we gave friend A. a dozen or so, and here they are growing finely and giving promise of a large crop. They beat those in our own garden! We would not admit that he had given them any better care and culture than we had, but explained their superiority on the ground that his garden is thoroughly sheltered, while ours, at present, is exposed to the west winds.

We compared notes about oats and barley. We had neither of us anything to brag of. He had found the spring quite as wet and unpropitious as we had, but would not wait. "Why, sir," he said, "the boy in dragging in the oats in yonder hollow had to ride on the harrow, and it went clear under water out of sight." Of course the crop was light in the low places, but on the whole, will be better than if he had waited as we did, till the whole field was in good order.

Now, was the half-hour spent on this farm lost? Admitting that there was nothing particularly to see, was it not pleasant to talk over what we had done and what we proposed to do. We are sure that we accomplished much more during the remainder of the week than if we had stayed at home. Farmers should visit more—not go to the city, many go there too often—but visit each other, not at the village grocery, but at each other's homes.

NO WEEDS TO PULL.—Stir the ground often, and they will never get big enough to pull. A loose top-soil can be stirred up a half-dozen times with a hoe in the time required to go over it once in the pulling process.

To preserve meadows in their productiveness, it is necessary to harrow them every second autumn, amply top-dressing, and roll them.

FARM WORK FOR AUGUST.

HARVESTING.—In the far North, where this work is not yet completed, refer to the directions of last month. Oats in many places yet remain to be cut. This should be done while the straw is yet slightly green—the straw will be more valuable, and the grain not shell out as when fully ripe. The gleanings of all grain fields may be secured with a horse rake.

STUBBLE GROUND.—To destroy the seeds of weeds, harrow all stubble ground as soon as the harvest has been secured, or pigs have eaten all the gleanings—the first rain will then cause all seeds to germinate, and the next plowing will turn under the green crop as manure.

HARVEST TOOLS.—These are often neglected, and suffered to remain weeks exposed to the weather, to their serious injury, by the rusting of metal and the decay of wood. Let them all be carefully housed, after having been thoroughly cleaned, and the bright metal parts rubbed slightly with lard, oil or melted grafting wax.

SEED WHEAT.—In order to keep up the highest quality, or to improve the seed of wheat, select the very best portions of the field, and exclude the seeds of every weed, and especially of that notorious intruder, chess. Many careful farmers, by continued attention for years, have succeeded in entirely eradicating chess from their farms. To improve the quality of seed wheat, the largest and finest heads may be selected by hand; the process repeated, year after year, will give very encouraging results. A half day spent in thus selecting the best heads will furnish a considerable amount, and all weeds may thus be kept out. The best winnowing machines may also be used for this purpose, separating the largest, best and earliest ripening grains from the rest.

WEEDS.—This is the season of the year when many seeds ripen and scatter their seeds. A day's work now, properly applied, may therefore save a half dozen days' labor another season. Clear all the weeds out of corn and potato fields, root crops and gardens. Briers cut during this month will be severely checked in growth, and sometimes destroyed. Plow in deeply the ox-eye daisy; dig up all scattered plants which appear before winter, and follow next year with a hoed crop.

DRAINING.—On lands which were too wet to underdrain last spring, the work may be now done to advantage. Muck swamps, which may be reclaimed and brought into cultivation, or which may afford muck for compost heaps, should now be thoroughly underdrained. The muck for manure should be thrown out and formed into large, well-shaped

heaps, and they will become dry in the course of a few months. To prevent rains from soaking these heaps, they may be neatly covered with boards or thatch, or if even made with a smooth sloping top, beaten hard with a spade, much of the rain will be thrown off from the surface. The disappointment which many meet with in the use of muck with manure, is owing to the amount of water which it already contains, preventing the absorption of the liquid parts of the manure. Wet muck is usually about nine-tenths water; and if rendered perfectly dry, will therefore absorb about nine times its own weight of liquid manure; hence the importance of using it in yards or manure heaps as dry as possible.

MANURING WHEAT.—In most of our best wheat regions, unless the soil is already quite rich, the most effective use of manure is a top-dressing after the land has been plowed. It has often increased the crop eight or ten bushels per acre, and sometimes given a good yield of the Mediterranean variety where the winter has nearly destroyed undressed fields. The manure for this purpose should be fine or well rotted and well broken by harrowing. To prevent the manure wagons from hardening the plowed soil, it is a good way to plow and then dress a strip on the further side of the field, and then repeat the process on successive strips till the whole is completed. If the soil is very dry, bring the moist portions up by deep plowing, and drill in immediately.

STACKS AND STRAW.—Every farmer, where practicable, should provide barn room for all his hay and straw; but where stacks become necessary, much may be done for securing their contents in good condition by retopping them. A load of straw neatly placed upon the top of a large hay-stack, and neatly raked downwards, or what is better, a thatched top, would be of great benefit.

Farmers who have ample barn room, with their grain safe from rats, and who are not compelled to hurry it early into market, will do best to leave their thrashing until winter. A small machine, driven by a two-horse endless chain power, will enable them to go through the work at that time with little or no additional help for attendance. The straw being fresh will be preferred by animals. Where, however, thrashing is now done, care should be taken to secure straw in good stacks, protected from the weather. Good, well-preserved straw will assist much in wintering animals, and if fed in connection with a small portion of grain or meal, may bring them through in good condition, more cheaply than if fed on hay alone. The daily use of a portion of straw as litter will help towards the manufacture of a large amount of manure. The straw should therefore be placed where it is easily accessi-

ble at all times. The stacks or ricks should therefore be as carefully built as stacks for hay.

FATTENING ANIMALS.—Feeding these should be commenced early in the season—the same amount of food will go much farther now than in cold weather. Late summer apples may be fed to swine. Select and purchase all needed stock.

MEADOWS.—These should be now cleaned of all bushes, rocks, stones, and other rubbish which may interfere with the mowing machine another season.

FENCES AND STONE WALLS.—Farms which have loose stones, or quarries, may be furnished with the best of all barriers, in the shape of good stone walls. A few weeks spent each year will after a time furnish the farm. The great leading requisite, to prevent the frost from ultimately throwing them over, is to set them in trenches. These trenches should be as wide as the bottom of the wall, and deep enough to be below frost—say from a foot to a foot and a half. These trenches may be filled with such small stones as can not be used in the wall; large ones will not answer. The trenches should never become filled with water. Walls built upon the surface of the ground, no matter how well built and perfect the blocks may be, will soon become distorted by heaving, and be ultimately overthrown by frost. Where the stone are not good for building, the wall may be bound together by strong cross-ties of durable wood, placed about half way up, or at two or three different distances up—cut the right length with a saw, and split thin, and two or three inches wide. In such cases, or where stone is not abundant, half wall may be built, capped with two rails, supported by stakes.

SAVING TIMOTHY SEED.—The great point is to have a good, *clean* crop. The best portion of the meadow should be selected, and all foul weeds previously well cleaned by hand. It is usually cut too late, or when the seed shells. The best time is when most of the heads have become brown. It is unimportant how it is cut, provided it is taken in before the seed wastes, and is not allowed to heat or mold. It may be cradled at some height, the rest being afterwards cut with a mowing machine; or it may be cut with a hand-scythe—narrow swaths and a little practice enabling the workman to throw the heads all one way. It will usually be dry enough to bind in a day or two.—*Tucker's Annual Register.*

RAT TRAP.—A good rat trap, it is said, may be made by filling a smooth kettle to within six inches of the top with water, and covering the surface with chaff. The first chap who gets in makes an outcry because he can not get out; and the rest coming to see what the matter is, share the same fate.

POULTRY HINTS FOR AUGUST.

WRITTEN FOR THE GENESEE FARMER BY C. N. BEMENT.

Now that the hens have hatched their broods, it is well to look at their dormitories. When confined to narrow spaces they are quite apt to be infested with vermin, often to such an extent as to actually drive them from their nests; in some cases to that extent that the eggs would appear alive with very minute insects. It would be well, therefore, to examine the nests, and if any are found, no time should be lost in exterminating them, either by fumigating with sulphur, or suffocating with the fumes of charcoal. This may be done by closing all the apertures, and placing an iron vessel within charged with charcoal and with sulphur or brimstone—the fumes and gas will soon put a stop to their career. When the room has been aired and is free from gas, the nest boxes should be cleaned out, as well as the manure, and fresh slacked lime and dry wood ashes should be strewed over the bottom of the nest-boxes and floor, particularly under the roosting poles. Then take hot lime-water and wash the poles, nest-boxes, inside and out, as well as the whole interior of the building. Fresh straw or hay may be placed in the boxes. A box or heap of dry ashes, lime (effete) and fine dust should be placed in one corner for the fowls to roll or bathe in, and free themselves from these troublesome pests, if any should be left on them.

Fowls generally commence moulting this month, which commonly lasts till October—sometimes to December. It is the approach, the duration, and the consequence of this period, which puts a stop to their laying. It is a critical time for all birds. All the period while it lasts, even to the time that the last feathers are replaced by new ones, till these are full grown, the wasting of the nutritive juices, prepared from the blood for the very purpose of promoting this growth, is considerable; and hence it is no wonder there should not remain enough in the body of the hen to cause her egg to grow.

Fowls which have been confined to small yards may now be allowed their liberty to run in grassy lanes, pastures or meadows after mowing, where they will find plenty of insects, worms and grasshoppers, and will require but a small portion of grain. They are also vegetarians. They are fond of cabbage, turnip and beet leaves, onions and clover.

There is such a thing as keeping too much poultry. They do not thrive when kept together in too large numbers. The most profitable way is to keep only as many as can obtain a good portion of their food from worms, insects, and the waste of the stable, pig-pens and the barn-yard. They will need additional food at certain seasons, but the main supply should be

derived from sources that would otherwise turn to waste.

When men lived in a state of nature, ailments were less numerous; and so it is with fowls. In a natural state they have few diseases; with us they have many, because forced into an unnatural state of life. We would trace them to bad feeding, and we would also by plain suggestions point out a cure.

Poultry, when wild, as in India, are always healthy. Our feeding them should most resemble that of the wild bird, if we would seek the same results, both in condition and feather. We should also seek to give the same food the bird would find if left to its own resources.

The fault of modern feeding out of vessels of any description—throwing down large heaps of food irregularly—and too often the substitution of anything cheap for that which is wholesome.

In a state of nature fowls run over a greater extent of ground before they get a crop full. They pick up their food grain by grain, and with it small pieces of gravel, dirt, blades of grass, and other things that all help digestion. Placed before fowls, in heaps of grain, the birds do in five minutes that which should be the work of two hours. They eat a greedy fill, and suffering unnatural repletion, they have recourse to drink; the corn swells in their crop, and the sufferers, instead of walking cheerfully about, hide in corners and squat about to the detriment of their health. This applies particularly to the bad practice of throwing down the food in heaps.

In their natural state, at break of day, all kinds of birds are in search of food, and they find it. What an evil it is then for them to be fed one day at seven, the next at nine, and sometimes not till midday. A still greater evil is to endeavor to make up for previous neglect by an extra quantity.

We will now endeavor to point out a better plan for general feeding, not with a view of fattening or extra condition, but to keep the fowls in good plight.

They should be out at daybreak, and should be fed directly with crushed oats, or cracked corn, or a mixture of both, moistened with water, so that when cast down it will crumble. As soon as they cease to run after it, leave off feeding. At noon give them a feed of whole grain, either corn, barley, oats or buckwheat, but throw it as far, and scatter it as much, as you can—throw it among grass or straw spread over the ground, and you will see the fowls scatter about in a natural way, picking up the stray grains. In the afternoon, feed again as in the morning. Our system then is, feeding three times a day, and no food save what they can find at any other time.

Fowls which have no extensive range want to be

fed as soon as they are let out in the morning, and the more work that is given them to earn their breakfast by having it thrown wide the better; care must, however, be taken that the food is not thrown in dirty places, for in feeding, as in every thing else, fowls are lovers of cleanliness.

Fowls eat a great variety of food: all kinds of grain and seeds, and preparations made for them; also most sorts of vegetables, raw or cooked, and they are fond of a certain quantity of animal food: insects, worms, grubs and maggots they search for with avidity. Potatoes form one of the most economical articles of food; but it is essential not only that these should be boiled or steamed, but that they should be given *warm*, as hens do not relish "cold taters." In most houses there are many well known scraps and refuse that will serve fowls, such as crumbs of bread, fragments of pies and puddings, and even bits of meat and fish.

Perhaps with all of us the greatest fault may be that when we get a number of chickens hatched, we forget to reckon the space they will occupy or require when nearly grown up. At three weeks old the little twitterers run about, are strong in health, enjoy life and are happy. At three months old, the house in which there was plenty of room for its inhabitants while they were still in the down, is now too full, the ventilation becomes insufficient to supply so many breathers, and the task of maintaining the degree of purity and cleanliness needful for their health, is a matter of increasing difficulty. The chickens under these circumstances assume a new aspect: they lose their liveliness; in their catables they are hard to please; they mope about and become pallid and sickly in appearance. Then begins a most painful, troublesome task—that of nursing up a parcel of sick chickens. Most persons find their feathered dependants which generally ends in disappointment, but still it is a duty; and if we derive from the inhabitants of our poultry yards profit, we can scarcely refuse to them the return of trying to make their sufferings less when they are sick, or ending their pain by having them killed.

It is said on the highest authority, "The merciful man is merciful to his beast." It is not taking too much of a stand to consider that uniform kindness to our feathered favorites also may hold a place even among christian duties. Those who are fond of living things will feel pain to see them treated with cruelty, may arise (as it generally does) from thoughtlessness, not from design. To see a miserable little chicken beaten about among older and stronger fowls, and to hear the owner say, "Never mind, the little misery will never do any good," has many times excited the remark, or perhaps only the thought, in the tender hearted, "Then why not show

it the mercy of having it put out of its misery?" It is far from our meaning to attribute this kind of neglect to intentional unkindness, but surely it would be a forethought which would pay itself to consider, before filling our poultry yard with little sufferers, what would be their chance of living there in comfort and enjoyment.

The early hatched chickens, if not already disposed of, now is the time to sell them. It should be the aim to have them at this time as large and fat as possible. We think at six weeks old they will return the best profit in market in proportion to their age and food. They are naturally then most fat, namely, about the time they leave the hen and have not run off their brooding flesh by exertion for food and by growth. Particular birds can be selected for breeding stock, as their color and form will be by that time apparent so as to make choice with safety; also it will be easy to tell the males from the females. If their keep costs nothing, and they are raised near or convenient to a market, they may, in some cases, be advantageously retained till the holidays, when they seldom fail to bring a good price; but if a large number are raised, they will of course be required to be marketed regularly. Of this the farmer will be the best judge. We are informed some find it most advantageous to sell to dealers who travel the country in all directions with vehicles prepared to take fowls from the yard, paying cash prices, sufficiently liberal to return a handsome profit to the breeder.

AN INSECT SAMSON.

EVERY one that has taken the common beetle in his hand, knows that its limbs, if not remarkable for agility, are very powerful; but I was not prepared for so Samsonian a feat as that I have just witnessed. When the insect was brought to me, having no box immediately at hand, I was at a loss to know where to put it until I could kill it; a quart bottle full of milk being on the table, I placed the beetle for the present, under that, the hollow at the bottom allowing him room to stand upright. Presently, to my surprise, the bottle began to move slowly, and glide along the smooth table, propelled by the muscular power of the imprisoned insect, and continued for some time to perambulate the surface, to the astonishment of all who witnessed it. The weight of the bottle and its contents could not have been less than three pounds and a half, while that of the beetle was about half an ounce; so that it moved a weight of 112 times exceeding its own. A better notion than figures can convey will be obtained of this fact by supposing a lad of fifteen to be imprisoned under the great bell of St. Paul, which weighs 15,000 pounds, and to move to and fro upon a smooth pavement by pushing within.—*Professor Goss.*

NOTES FROM MICHIGAN.

EDS. GENESEE FARMER: The season is now so far advanced that we can speak with comparative confidence as to the effect of the current season upon crops. During almost the entire winter, now past, the ground in this region, was bare of its usual covering of snow, and exposed to alternate freezing and thawing. In consequence of this, as was anticipated, the wheat crop was, to all appearance, totally ruined, except occasionally a narrow strip under the lee of a fence or a range of forest. Indeed, so hopeless was the prospect, that in some cases, the crop was plowed up and re-sowed with spring grain. Since the opening of spring, however, the season has been exceedingly favorable for the development of the little remaining life of the wheat crop, and in consequence, it has improved beyond all our anticipations. We are now just commencing the harvest and find the grain unusually plump and fair and the quantity nearly or quite half a crop.

Corn is promising unusually well, with a greater breath than usual planted.

Oats have suffered severely from the recent drouth, and late sowed fields will prove almost worthless. Those who sowed early may reap half a crop.

Clover was almost ruined by the freezing and thawing of the past winter, while Herd's Grass has been sadly pinched by the recent drouth. It has, however, improved rapidly during the past two weeks, and in many cases, especially where there is a mixture of red top, is likely to yield a fair crop.

Fruits have suffered even more severely than grain crops. The sudden and severe frost of January 1st seems to have totally killed the fruit buds of peaches and also of cherries. Even the Morellos, which are usually considered entirely hardy, are almost entirely bare of fruit, while the Dukes and Hart cherries failed to produce even a blossom.

Peach trees, prior to the opening of spring, were supposed to be nearly or quite ruined, but they have generally escaped with nothing more than a severe shortening in.

Cherry trees, in a few cases, are fatally injured, but have generally passed safely through the ordeal.

Apple and pear trees show occasional signs of injury, but are generally uninjured, and are yielding about an averaged crop of fruit.

The strawberry crop would have been large, but for the drouth, which was at its height about picking time.

The tender raspberries, together with Lawton blackberries and grapes, except where protected, are producing little or nothing.

T. T. LYON.

Plymouth, Michigan, July 11th, 1864.

NOTES BY S. W.

You are right in your "Walks and Talks" in saying that when barley and oats need rain, corn and other crops that you can horse-hoe will thrive luxuriantly. Hoeing is a good substitute for a shower. Some men who call themselves farmers, never hoe their corn until it is weedy, and to such, weeds are a blessing. To help corn stand a drouth without "firing," as the Virginians say, it should be so often hoed as to mulch the hard, dry soil between the rows. When a highly manured clay loam is so hard and dry as to crack open, if the soil is only mulched by hoeing, the moisture below will be retained and the cracks close. I never yet saw a season too hot and dry for well-managed garden corn, and no field crops of corn have failed from excessive drouth since 1854. I had garden sweet corn in silk this season on the 25th day of June. Now, on the 10th day of July, the ears are formed and filling. It was planted on the 3d day of May, hoed often, and the suckers cut off.

A farmer writes from Cayuga county that the last fourteen days of June made the wheat crop—that fields which looked like a failure earlier in the month will give nearly an average crop. One farmer in Fayette, near Waterloo, commenced cutting his wheat on the 8th. The hot, dry weather is maturing the wheat crop rapidly. Short as it will be in some fields, in others it is more than an average. But "Little Seneca," once a great wheat-growing county, has now perhaps three times more acres in corn than in wheat, and the crop will be large unless the present drouth continues weeks longer. Our farmers do well to make corn the leading grain crop, as this is emphatically a capital corn region. While the other cereals often fail from adverse seasons, insects, &c., corn is almost always a sure crop. Indian corn delights in our long, hot days, and short, warm nights. In the tropical regions, owing to the shorter day and longer night it does not grow as fast, nor yield as well, as it does here. I noticed after the first warm June night, with the mercury at 70° at sunrising, the tasseling corn grew more than three inches in height the same day. Unlike the more dainty feeders, wheat and barley, corn will grow well on any soil that is well drained and well manured. But the present dry, hot days, are hard on late-sown barley and oats. Potatoes also need rain much; and even hoeing will not prevent garden marrowfat peas from turning yellow. Seedling tomatoes are full of young fruit, while those from the hot-bed, grown on sod, are no more forward.

The interesting glimpse you give us of your suburban farming, shows that your experience in the troubles incidental to hired help is being burned in. Like those officers who head their men in battle, the

farmer who says "Come, boys," and goes ahead, is always followed by his men and wins success. Blessed is that farmer whose early physical education makes work to him a pastime. But Ike Marble tells us of another class of farmers, who contrive to get rich without hiring help or working much themselves. He calls them the "stocking farmers," because a stocking is their purse; they buy nothing, live on corn-bread and crust-coffee, and save every penny they can squeeze out of the sorry products of their poor farming. Such men are not indigenous of the Great West; but we have a wealthy farmer here whose elegant acres are white with daisies. He wants to sell his farm that he may get the interest of the money. He already owns woolen stock, and Government 5.20s, but he says it wont pay to hire help to carry on the farm. When younger he did all himself, and what he could not do went undone. He is evidently of the stocking genus. He will die without knowing the pleasure and profit to be derived from applying capital to farming.

A farmer writes from Gerry, on the high lands of Chataqua, that on the 7th of June the mercury at sunrise was 29°. All the beans then up were killed, and corn and potatoes cut badly; but he says such a crop of grass was hardly ever seen before, even in that great grass region. All their butter was contracted for to supply the epicures of New York at 35 cents a pound or more. Both soil and climate make this county the paradise of butter makers, and cheese factories are being built there. Then what boots it if the frost does sometimes kill the corn, or even the spring pigs, when they are hardly ever troubled with drouths? Their grass crops are enormous, pastures ever green, and their butter brings five to ten cents a pound more than the Aromalass grease of the lower grain regions; and they can also make twice as much to the cow; so that almost every farmer's family rides in a spring carriage and sets up a 400-dollar piano.

We had a half-inch shower last evening, which refreshes everything. I hope the dry spell is broken. While early planted corn luxuriates in hot, dry weather, my later planted is retarded by drouth. Yet how many farmers will tell you that early planted corn grows slow and gets stunted, while that planted later goes right ahead and soon catches up. The fact is, corn grows at the root in cool weather, and it goes ahead rapidly after the warm weather takes the place of cool days and chilly nights. I never yet had corn planted after June 1st catch up with the early planted; besides, late planted corn rarely fills its ears as well as the early planted, nor does it make as much stalk. After the long nights of late August and September begin, corn grows slowly, and in October not at all, frost or no frost.

Waterloo, N. Y., July 10, 1864.

SUMMER-FALLOWS IN GERMANY.

MESSEURS, EDITORS: Fall wheat and fall rye being the staple crops in Germany, and considered the most important ones—(Indian corn not ripening at all)—and as besides, our modes of operating in raising these crops is based on many hundred years experience, I will briefly state how we prepare the land before sowing, leaving it to your readers how much or how little of my remarks may be applicable to American Agriculture. From my own experience I know that, especially in the Western States, this chapter is capable of some improvement yet.

We have two main rules:

1. To give the field as much summer-fallow as possible.
2. To give it time to settle between the seed-furrow and the sowing of the seed.

Besides it is important to know that wheat and rye require different modes of treatment. For rye it is best to plow two or three times; for wheat one plowing is much preferable to two. Young farmers, sometimes wanting to excel, will plow twice for wheat, but this is a bad practice; it loosens the land too much, and the wheat afterwards falls a prey to worms. Of course there are exceptions to this rule; there are cases where two plowings become a necessity even for wheat.

It is of great importance to have a proper rotation of crops. Wheat, as well as rye, will do best where they are preceded by rape seed or flax, next best after clover or beans, tolerably well after ruta bagas or potatoes, more doubtful after turnips and beets. On most soils a good crop of wheat may be followed safely by rye; in fewer cases wheat twice; in even a smaller class of soils wheat after rye may do; only in exceptional cases wheat or rye may follow oats. Oats are mostly the last link in our rotations; they care nothing for fresh manure, and will do well where other crops would require manuring; but the field needs a strong dressing of manure after it has borne oats, so we let it mostly be followed by beets, potatoes, or other root crops, or beans or rape seed, seldom by clover.

I must also remark that we raise more rye than wheat, rye bread being the principal article of home consumption; but of late years the culture of wheat has greatly increased, wheat being a more profitable crop for export.

Now to my above rules:

1. We have one mode of plowing for which in America you have not even a name; I shall call it "skimming." This operation cannot be carried out with an American plow. I have on my farm here seven different plows in use, all made in American shops, from the Moline steel plow and Mohawk Valley Clipper, down to the New York Eagle, but with

none of them, excellent as they are for deep plowing, can I "skim" the field. Still this is a highly beneficial operation. It consists in just skimming off the top or sod, aiming to leave between every two furrows a narrow strip ($\frac{1}{2}$ to 1 inch wide) untouched. The plowshare therefore is set slanting, going about 1 to 1 $\frac{1}{2}$ inches deep at the landside, and slanting out to the surface. We accomplish this operation of skimming generally by the common plow (on wheels) and one horse, but of late have introduced plows with two or three, or even five shares. I prefer the plow with three shares, as this can be worked by two horses, will finish five acres per day, and work well under all circumstances. Now you may ask, what this skimming is good for? It gives the land a summer fallow, which is equal in effect to a half manuring. It not only exposes the turned up furrow to the full action of sun and air, but this very furrow serves as a mulching for the layer below, *completely changing its appearance and texture*. This is of the greatest importance. Under such a mulching the land will be enriched by the treasures of the atmosphere. Only compare a field so skimmed three weeks ago with one that has been lying unskimmed, and you will need no more argument. But your readers will say, why not plow deep at once? For two reasons; I want the summer fallow to commence as early as possible. When cutting wheat, for instance I have all the cocks put in straight rows running the way I want to plow; and the very next day after the cradle follows the skimming plow. We cannot wait till the wheat may be drawn off, for we would lose one week, and the land would bake. Just examine the soil on the day of mowing, and then again two weeks later where the sun has burned on the naked ground, and you will be satisfied; experience will confirm your observation. This may suffice for the present. It would be impossible to give the fields a deep furrow and keep up with the mowers; by merely skimming this can be done; the deep plowing comes thereafter; the land never becomes too hard for it where it has been skimmed. The surface soil having had the benefit of a fallow is then turned below, and another layer exposed to fallowing. This skimming is much preferable to the work done by cultivators, for in skimming I turn under all weeds and grasses, converting them into manure, while the cultivator makes them into hay. This skimming also does not make the land too loose for wheat. I will merely add that on clover land we generally omit the skimming, giving a deep furrow, directly following the scythe.

We want the ground to settle before sowing. Never sow wheat or rye on new plowed land, if you can help it, but give it the last furrow from 6 to 8 weeks before sowing time. This is of the highest importance. The soil then becomes thoroughly

pulverized by the alternate action of rain and sun—it rots; aye, it will rise (puff) like well made dough—I can describe it in no other way—the land must look as if yeast had been put into it and had done its work well. Then is the time to sow. A farmer must be able to discover when this moment has arrived when he walks across the fields, by the feeling of his steps, or by rubbing some dirt between his fingers; if he cannot, he is like a physician that cannot feel his patient's pulse.

But my letter is growing too long. Let me close by saying that it will not do simply to cover the seed by the harrow, but the harrow and roller united must completely pack the ground and destroy every small interval created by the plow. Your feet dare not sink in; the harder the better. Pack it at the bottom; leave it open on the surface. Small clods on the surface are an advantage; dust on top is not desirable. I mistrust all smooth rollers; but with best success have covered the seed (wheat or rye) by Croskill's clod-breaker alone, and finish the whole job without any harrow.

Of course there are soils so infested by certain weeds and there are climates so dry and burning that in such localities it will not do to plow the ground eight weeks before sowing for the last time.—*Foreign Correspondence of the Country Gentleman.*
MUNSTER, Prussia, June 10, 1864.

GAS-TAR AS A FARM PAINT.

THE high price of lumber and the expense of ordinary paints, render it desirable that we should avail ourselves of every means of rendering our board fences, buildings, &c., more durable, and also that we should endeavor to discover some cheap material that can be used as a paint.

Gas-tar seems to secure both objects. It is cheap; and all experience seems to show that few materials will render wood so impervious to decay. For fences, gates, and such farm buildings where the color and smell are not objectionable, there is no paint which can be used to so good an advantage as gas-tar. It should be applied with a brush while hot. One or two coats will ordinarily be sufficient.

The lower part of posts and of all wood that is in contact with the soil might be rendered much more durable by being saturated with boiling-hot gas-tar. Experiments both in this country and in Europe, have shown that the sleepers on railroads when so treated will last many years longer than those not so treated.

To secure the preservation of wood two things are requisite: 1st, to exclude the oxygen of the atmosphere and moisture; and 2d, to coagulate the albumen of the sap. The various metallic or mineral paints secure, to a certain extent, the former ob-

ject; and the solution of a metallic sulphate, such as sulphate of iron, sulphate of zinc, &c., the latter object. Gas-tar, however, will accomplish both objects. It will, when used as a paint, exclude the air and moisture; and will also coagulate the albumen (white of egg) of the sap.

We trust our readers will not forget the valuable properties of this cheap paint.

HOW TO RAISE ONE HUNDRED BUSHELS OF SHELLED CORN TO THE ACRE.

THE *Country Gentleman* says if the following directions are faithfully carried out, and the work is done in the proper season, there is no reason why we may not raise, *on the average*, one hundred bushels of shelled corn per acre:

First, procure the best seed and keep it so by constantly selecting the finest ears from the best stalks. If a small variety, it must be planted thicker than for a large one—that is the number of stalks on an acre must correspond with the character of the variety. We have known many instances where a small early sort has been rejected as worthless, because it was planted too thin—and on the other hand, some large sorts have succeeded imperfectly by being planted too densely.

Second, the soil. It is premised that this is sufficiently drained to become warmed early in the season and to admit of free and friable working. We will suppose that it is a pasture. Spread broadcast during the autumn all the coarse and other manure that can be obtained, enough to give it some thirty or forty loads per acre; but, if sufficient cannot be had, complete the amount by drawing out and spreading during winter fresh manure from the stable as fast as it accumulates. The rains and melting snows which occur by the approach of warm weather the following spring will dissolve the best parts of the manure and carry them down along the grass roots, depositing them in the soil in a more complete degree of intermixture with its particles than could ever be accomplished by the use of the finest harrow.

Third. In the spring, a short time before planting, invert the sod to a moderate depth, and pulverize its upper surface by means of a "Shares' Harrow," which prevents the sod from being torn up, at the same time that the mellowing process is twice as deep as with the common harrow. Before using this harrow, unless the soil has already been made very rich, spread over the surface of the inverted sod about ten loads per acre of short or old manure or compost. The harrow will work it well in, and it will not only accelerate the growth of the young plants, but tend to keep the top soil mellow and prevent crusting. Drop a handful of fine manure in each hill at planting.

Fourth, plant the corn. If planted in drills, (everything else being well done,) the crop will be one-third to one-fourth greater than if planted in hills forming rows each way, because the stalks will be more evenly distributed, which always contributes to the largest crop. A good drill corn-planter will do this work rapidly, and so straight that the cultivator may be run very close to the rows; and if the land has been kept clean, but little hand-hoeing will be necessary. Next to drills, the practice of planting in hills close in the row will be found best; and lastly, planting in hills forming rows both ways, although the latter will not yield so much corn, yet the saving of labor which it will effect on land infested with weeds, may more than counterbalance the increased amount of the crop obtained from drills; but, in order that the stalks may be as evenly distributed as possible, the hills should be as near together as practicable to allow the cultivator to pass, and leaving fewer stalks in the hill. If, for example, the distance each way is only three feet apart, four stalks may be enough for small northern corn, and two stalks for gourd seed or dent corn. It is always best to plant plenty of seed, and thin out regularly when necessary. A few years' practice will enable any good farmer to judge the nearest distances that may be allowed, to admit every ear to fill well.

Fifth. Now comes a most important part, namely, the cultivation. Keep the horse-hoe passing between the rows every week, from the time that the corn is fairly above the surface until it becomes so large as to close up the rows. Actual experience has shown that this constant mellowing and breaking of the crust adds several bushels per acre to the crop.

TOP DRESSING FOR GRASS LAND.

It will be found far better to keep coarse manure in a heap and under cover till autumn, than to use it as a top-dressing for grass land in the spring. Coarse, unfermented barnyard manure, if spread upon grass land in the spring, will be found of little value. The true reason of this is, manure needs to ferment, more or less, before it will be prepared to promote the growth of plants. Coarse manure will not ferment very rapidly in the spring of the year while it remains on the surface of the soil. And more than this, in the spring the tendency of everything is upward, and the fertilizing properties of coarse manure fly away in the air, unless there is a little earth over them to absorb them. In autumn everything tends downward into the earth, where it will be ready to promote the growth of plants the next season. The fine scrapings of yards, and even common earth spread thinly on meadows in the spring, will often be the means of doubling the crop of hay; whereas coarse unfermented manure spread in the spring, will seldom do much good.—*Country Gent.*

DITCH YOUR SWALES.

EDS. GENESEE FARMER: Now that land in the older settled townships has been so often picked over that none but what is called inferior is to be had, the swales and swamps attract attention. People look at the deep black soil and wet ground and long to attack it, but are afraid. The general run of farmers little know what may be done with such property, but those who have once seen ditched swales, prefer the deep, rich fatness of such places to inferior dry ground. There is scarcely any land which has not some run to it; it slopes one way or other, and until the level is applied few have any idea how much fall there really is. If the water in a swale can be seen to move at all, be sure there is run enough to greatly improve, if not thoroughly drain it.

Swaley land can be ditched with very little trouble, and at small expense. Take a piece of plained lumber five or six feet long, nail it at right angles to a leg of the same stuff, well sharpened, so as easily to penetrate the ground and hold the instrument upright and firm. If you have a carpenter's or farmer's level put it on the top of the cross-piece, and move the instrument about until the bead in the level stands in the center of the space in the glass, then look along the level top and see where the top of the level cuts the ground. Look each way and you will very soon ascertain which way the fall lies.

If you have no carpenter's level, hollow out the upper side of the cross-piece of lumber about half an inch deep, have water with you, and fill the hollow, and proceed as before, and you will be able to tell quite near enough which way the water in the swale will run.

By these means find the best out-fall, and commence your ditch. Do not attempt to go straight, but go through the swale and amongst the trees, in the easiest places. Let your drain be about a foot or 18 inches deep, slope the sides well so as to make the top about four feet wide and the bottom the width of a spade, cut the roots that come in your way and throw the stuff well out of the drain; carry this ditch right through to the upper end of the swale. If there are branches to the swale, go up the branches until you come to the end of them, and you will never have done anything that will pay you so well. Do all this before you attempt to clear or chop. Let the drains work for a whole season if possible, and the next season the ground will be hard and dry, then chop it, taking care not to throw the trees into the ditch, but across it, if you cannot fall them the other way. You may then proceed to clear and log in the usual manner, and will find that instead of a nuisance, you have a splendid piece of land.

Such a ditch as is required will cost only about 20 cents a rod. It is nasty, cold, wet work, and is just fit for a hard working newly-come laboring man to take by the job. He will not be over-nice, and will be able to earn a dollar a day besides his board. I of course speak of old-fashioned money, and not green-backs.

Such places are full of craw-fish holes. These assist the draining greatly; but if the land is very stiff clay, you may require two, or even more ditches. Never mind, they will pay well, and you will never regret it.

If, on the other hand, you slash down the timber without first ditching, and leave the surface to dry up without first ditching it, you can never log it nor burn it; each log that lies on the ground makes mischief, and the swale becomes a swamp and worthless.

Swaley land, as it dries up with ditches, settles away from the roots of the trees; the frost helps by lifting them, and in a very few years the entire of the stumps will come out with a small pull on each.

Such land, as a swale, is worthless. It will grow nothing but small black ash or cedars, or possibly bull rushes. When ditched and cleared, if well done, it becomes the best land on the farm, after liming and due cultivation.

A CANADIAN FARMER.

OLD LEATHER FOR MANURE.

DRY hides contain some sixteen or eighteen per cent. of nitrogen, or more than thirty times as much as ordinary barn-yard manure. If they could be decomposed so as to render their nitrogen immediately available for plants, they would be one of the most powerful fertilizers in the world—fully equal to the best Peruvian guano. The largest crop of potatoes we ever saw raised was upon land which received a liberal dressing of old well rotted manure belonging to a saddler who kept a horse and cow, and who was in the habit of throwing all his old scraps of leather on the manure heap.

A correspondent of the *Germantown Telegraph* says that he offered the boys in his town twenty-five cents a cwt. for all the old shoes they could collect. He procured in this way several hundred pounds. He roasted them in an oven, heated to double the heat required to bake bread, and they became sufficiently brittle to be readily ground in a bone mill.

The leather dust was put on some potatoes in the row, aside of bone-dust, and the difference was in favor of the leather manure, it being much finer, and consequently had a more immediate effect; the effect of the bones, however, were also distinctly seen from a distance. On each side a liberal sup-

ply of barn-yard manure was used; but the difference was very plainly shown in favor of the two former fertilizers.

The ground was put in with wheat after the potato crop was taken up, and now no difference can be seen between the leather and bone manure; but a very marked difference, at a distance, where those fertilizers and the barn-yard manure were applied—the former leaving a dark green streak through the field with tall and well-stocked grain. It is quite a contrast. Although the wheat on the whole field is good, yet the part where the leather and bone fertilizers were applied, is so much superior as to institute numerous inquiries by strangers passing along.

TOP-DRESSING GRASS LANDS.

It is the practice of many farmers to top-dress their grass lands with composted manure as soon as they conveniently can after getting off the hay crop. It is a good practice. The manure protects the roots a little from the rays of the sun, and the first shower washes some of its nutritious properties into the soil and about the roots of the grass, so that they are stipulated to throw out new sets of leaves, which afford a still further protection, both to plants and the manure. The surface is also sufficiently hard in summer to allow the teams to pass over it without cutting ruts, or being poached by the feet of the animals drawing the load.

We refer to this matter at this particular time in order to suggest to those who have grass lands newly laid down—that is, that have been mowed only one or two years—not to postpone the application of some sort of dressing, if they desire to continue cutting a remunerative crop for several years. The mistake made by most farmers is in postponing the top-dressing too long. If clover is allowed to seed, and is then cut, the roots die and there can be no further crop from them. If the clover is cut while in blossom, there will be a second crop the same year, and perhaps two crops the succeeding year, if the land is rich. Red top and herds grass will continue longer than clover, but the roots of both these gradually die out, or yield to stronger grasses, until the whole crop is changed from the sweet and nutritious grasses just named, to the wiry "June grass," weeds, or some other plants of little value. All this comes from not top-dressing in season. If this were done, even though but slightly, after the first crop is cut, and afterwards each year, the roots of the grasses sowed would be kept in a vigorous condition, and our mowing fields would not "run out" as they do now. Under such a practice, moist and naturally good lands would yield a ton or a ton and a half of hay per acre for eight or ten years in succession with more certainty than they now yield two thirds that amount.

A neglect of this important item of farm work brings a train of losses that should be avoided. In the first place, the farmer, feeling that he can not afford to plow so often, allows the field to remain in grass for several years, when he gets but a scanty crop, not half, perhaps, what the land is capable of producing under skillful cultivation. The next expense incurred is that of plowing and preparing the soil, and the cost of seed to stock it again. These are all expensive, and if their frequency could be lessened one-half or one-third, the saving would amount to a handsome sum in a twenty years' practice.—*New England Farmer*.

HOW TO SHARPEN A SCYTHE.

To properly grind and whet a scythe, requires some little practical skill, in the attainment of which the beginner may be assisted by a few hints. The cutting edge of a scythe or similar instrument, when examined by a microscope, shows numerous fine projecting points or a series of minute wedges which are to be driven into the substance operated on, to separate the adjoining parts. In order that they may enter the more readily, these points should incline in the direction of the stroke given with the blade of the instrument. In cutting with the scythe, the edge strikes the grass at an angle of about forty-five degrees, and hence the grinding should be done so as to have the points set in that direction to the blade. This is done by keeping the blade firmly upon the stone, with the point drawn toward the body of the holder, at the above mentioned angle with the edge of the stone. Commence to grind at the heel and move it steadily along as the work progresses, until the point is reached, then grind the other side in the same manner. Never rub the scythe back and forth upon the stone as though endeavoring to whet it. The revolution of the stone will wear away the steel much better than rubbing it in this manner, by which the edge is likely to be made rounded, and to be set irregularly. It is preferable to hold the scythe so that the stone will revolve toward the edge. In this way the holder can see when the edge is reached, and the particles ground off are carried away clean. In the opposite method of grinding there is danger of making a "feather" edge which will readily crumble off, and leave the scythe, almost or quite as dull as before. The blade should be ground equally on both sides. In whetting the scythe, lay the rifle or whetstone flat against the side of the blade, and give a light quick stroke downward and forward in the direction of the edge, so that the scratches it makes shall keep the points set in the same direction as was given them by grinding. By following these simple suggestions, a scythe may be

made to hold its edge twice as long as when the rifle or whetstone is drawn along the edge almost at random. A few strokes carefully taken will enable the workman to keep the proper direction and whet rapidly."—*American Agriculturist*.

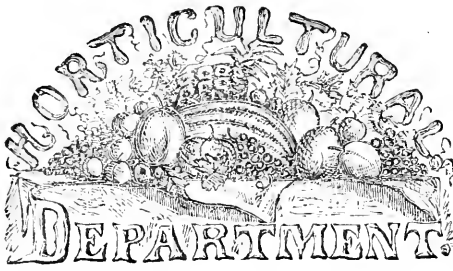
HOW TO PLOW AMONG TREES.

A GENTLEMAN writing to the Farmers' Club of the American Institute, gives the following method of plowing among trees in rows: Hitch the traces full length directly to the plow; then take a crooked jack stick, like a piece of old scythe snath, two and a half feet long, sharpen each end so it will go into the links of the trace chains; then put it under the horse just forward of his hind legs, and stick each end in the chains; then get a stretcher about eight inches long, and put it as close to the plow as you can; this will give the horse plenty of room for his hind feet, and he can walk right against the trees or bushes and never injure them.

THE *London Agricultural Gazette* thinks that there is nothing gained by offering prizes for implements at Agricultural Fairs—that it is no benefit to the seller or purchaser, and states that fully as many implements and machines are shown when no prizes are offered—the advantages being that the fairs are good places for the manufacturers to exhibit their wares, and for farmers to examine into the respective merits of the same. The reason given for this is, that the awards are not truthful; and with the kind of tests which are applied can not be so. There is too much opportunity for jockeying.

CURE FOR POISON IVY.—*Eds. Genesee Farmer* :—I have twice cured myself, when poisoned with ivy, by immersing the poisoned parts in soft soap for thirty or forty minutes. The first time I tried this I merely put my feet in the soap because it made them feel better; the second time, it being on my hands, I put them in soap to cure them, and it did it. Let every one so afflicted try this remedy, and I assure them they will be glad they took the *Genesee Farmer*, and feel their obligation to make known any similar discovery which they may make.—E. D. W., *Pierpont, Ohio*.

A WOOLLY LAMB.—Last fall, Joseph W. Worcesster, of Lorain, sold a June buck lamb to W. B. Asmun for \$30. This lamb was wintered along with a lot of other sheep, and in May, when the lamb was eleven months old, was shorn, and yielded ten and a half pounds of wool, the weight of carcass being at the same time just thirty-three pounds. This comes within the merest fraction of being thirty-three per cent. of wool!—*Ohio Farmer*.



THE GARDEN IN AUGUST.

THE gardener needs the spirit of the warrior, so numerous are the obstacles and enemies which he is obliged to combat.

All through the spring it was too wet for working the soil to advantage. Such a spring favors the growth of weeds and the operations of the cut-worm. The latter is indeed a great pest, destroying cabbage and tomato plants, and frequently attacking other kinds. The best prevention against the cut-worm is to wind a strip of paper around the plant from root to leaf before setting it.

Hardly had our lamentations over the excessive rains ceased, when we began to see evidences of a severe drouth, and the most damaging of all drouths, an early one. A drouth in July or August is comparatively harmless, as most plants are germinated and deeply rooted, and others are matured, and dry weather to harvest them in is welcome. But a drouth in May or June is quite another affair; many seeds are not yet germinated, and but few plants are deeply rooted. The surface soon dries out, leaving a dry and parched bed for the seeds and rootlets, but little adapted to their wants at that time. The best antidote to the effects of an early drouth is to sow the seeds an unusual depth. Seeds that would rot in the ground if planted deep in April, or the first half of May, would do well at the same depth later in the season.

I had a striking illustration of the expediency of deep planting in a dry time in my experience in June. About the middle of the month I planted several acres of beans. The soil was very mellow, so that the marker made drills about three inches deep. I used a corn-planter, planting the beans about two inches below the drills, or five below the surface of the ground. Another hand working with me, dropped her beans in the drills, covering with a hoe. Although very dry, mine came up in a few days even and handsome. A portion of the others came up, irregularly, those covered deepest coming up first, while a large share of them failed to make their appearance until after a shower, which occurred on the 26th. The lesson to be drawn from this is, plant seeds deeper in warm weather, especial-

ly if a drouth is apprehended, than in cool weather.

I never saw the effects of stirring the soil more fully demonstrated than this summer, and no implement seems better adapted to that purpose than the cultivator. In a dry season, I would use no other implements in the corn-field than the cultivator and hoe. I kept the former running through mine almost constantly during the month of June, and the rapidity of its growth I never saw surpassed. On the fourth of July it met the requirements of the old rule, being high enough to tie the stalks of two contiguous over a horse's back. Corn on similar soil to mine in the neighborhood, worked out with a horse-hoe, rolled up from the drouth a long time before mine. Scooping out a deep furrow between the rows of corn, brings the roots too near the surface.

It has seemed to me that the various insect pests that trouble the gardener, have been more numerous than ever. I have tried a number of the repellants of the squash and cucumber bugs, which have been recommended, and have found them very effectual, if applied as the Irishman directed his flea-powder to be administered; "First catch the flea, squeeze him until he opens his mouth, and then drop a little of the powder in it, and it will kill him sure." In fact, I have found but one way to get rid of those terrible pests of cucumbers, melons and squashes, and that is to *hunt and kill them every day*. If commenced in season, and persistently followed up, a man will look over all the above vines necessary to supply a large family in fifteen minutes.

Asparagus. It is not a good plan to allow asparagus to go to seed, as it exhausts the roots unnecessarily. The stalks should be cut off as soon as they blossom.

Beans. Whenever Lima or any other pole bean has reached the top of their pole, the end should be pinched off, thus throwing the top into the remainder of the vine, increasing the size of the bean and hastening its maturity. If there be more string beans than can be used in their season, they can be picked, prepared for cooking, and salted down the same as cucumbers, for winter use. Put into a keg or stone jar, first a layer of salt, then about two inches in depth of beans, and so on until filled, when a board with a weight on should be placed on to press them down. They should be soaked over night before using.

Cabbages and Cauliflowers. Don't forget to hoe often, but do not hill up. The great secret of raising these vegetables and making them head is to keep stirring the soil.

Celery. Keep it growing rapidly, and about once in ten days draw a little earth around the plants, holding or tying the leaves together to keep the dirt out of their hearts.

Melons. Remove all but five or six from each vine and you will get much finer fruit. If carefully turned over when nearly ripe, they will ripen more evenly.

Corn. Leave the largest, earliest ears for seed.

Cucumbers should be picked over as often as every other day for pickles.

Onions. When ripe should be pulled and left exposed until thoroughly cured, before laying away for winter.

Potatoes. Early varieties are ripe and should be dug, and if to be kept long, should be buried in pits, or put into boxes or barrels mixed with dirt.

Tomatoes. Watch the vines for the tomato worm, which eats off the leaves and sometimes the fruit. They may be readily discovered by their droppings under the vine they are working on. Most of us will have to depend upon the tomato as a substitute for the peach.

Turnips. The Flat Dutch, the White Norfolk or Globe, and the Yellow Aberdeen may be sown through August.

Manure. The judicious gardener will not allow the materials for making manure to be wasted, but will collect them in a compost heap. All decaying animal and vegetable substances, the slops from the house, &c., should be thrown together in an out of the way place and frequently turned over and mixed together.

THE FRUIT GARDEN.

If not too dry, plantations of strawberries may be commenced in August. The plants will then become so deeply rooted before winter as to withstand the heaving of the winter frosts.

Raspberries. Cut out the old stalks, thin the new ones to four or five canes in a hill, and pinch off their ends to ensure maturity.

Blackberries. When through bearing should be served in the same way.

Grapes. Will be constantly throwing out superfluous shoots, which should be removed, and straggling vines blown down by the wind or borne down by the weight of their fruit, should be tied up. Bunches of fruit should be thinned out.

P. C. R.

DRESSING FOR STRAWBERRIES.—It is said that no dressing will so delight the strawberry as a heavy coat of dark forest mold. They are the children of the wilderness, force them as we will; and their little fibrous roots never forget their longing for the dark, unctuous odor of moldering forest leaves.

THE apple crop of this section will be light, as compared with that of last year. Much of the fruit has fallen from the trees. There will be a fair crop of peaches.

WINE GLASS PEAR TREES.

CAPT. W. R. AUSTIN, of Dorchester, Mass., is well known as one of the most successful amateur pear cultivators in the United States. We are assured by those who have seen his orchard that nothing could be handsomer and more thrifty than his trees. They are all trained in what is termed the "wine-glass" shape. His method of training is thus described by himself in a recent number of the *Boston Cultivator*:

"The outline or form I design to give is that of a wine-glass or goblet, rounded up in the middle; near walks or fences where there is not space enough for a round form they may be flattened at the sides, but always a little highest in the middle; never flat on top; you will perceive that as the arms or leaders which form the head of the tree *cannot* all start from the same point on the stem, (being from 8 to 12 in number) the upper ones, or those which diverge and branch highest from the stem, are to form the highest part of the tree, observing that the centre leader (which inclines to run up) is always cut out at the start, thus forcing the sap into the other leaders or branches, giving strength to the lower limbs, and laying the foundation of a low, stocky, open tree.—Having given to the tree this form at the outset, the young laterals, spray, or side shoots, are all to be kept pinched or clipped with scissors or light pruning shears (not a knife) to say 3 eyes, all during the growing season, and especially from about the middle of May to the 20th of June, when the growth is most profuse in spray, and requires the utmost vigilance; about the 1st to the 10th of July the leaders must also be topped, that is, cut off, say one-half, more or less, according to size; if cut *earlier* than this, while in rampant growth, an eye would immediately break just below where cut off and the leaders start again at once, and in any event, if the tree is vigorous, will start again during the season, or at the second growth, and are to be checked or cut off as often as is required; it is this *frequent stopping* of the *leaders* which gives size and strength to the branches to support the weight of fruit, more than the "*constant stopping of the laterals*;" but both must be done to attain the best results, and unless there is felt a full conviction of the benefit, or a natural love for the art, or both together, (as in my case) it will rarely be done, as it involves more labor and system than is convenient for most to bestow."

Mr. Austin claims to be the originator of this mode of training dwarf pear trees, having practiced it for twelve or fifteen years. He thinks it has the following advantage over the pyramidal form:

"1st, its low, stocky, open habit, less exposed to the high winds which pass through and leave the tree firm; 2d, the larger surface and open space for the admission of light and air, so essential for good

fruit; 3d, the facility of pruning, thinning and gathering the fruit, the trees being easily approached with an ordinary step-ladder, and every pear reached; 4th, the superiority of the fruit grown in this way, and the more certainty of annual crops; 5th, no large or severe pruning has ever to be done, the tree being constantly in shape, and no superfluous wood permitted to grow; 6th, vitality and vigor much increased, and the sap, instead of going into superfluous wood and over-growth, is absorbed by the fruit, and forms new fruit buds for the next year.

"The tall pyramid, to my mind, though symmetrical and graceful, suffers by comparison with the other form; being high, it reels over by the wind, and the lower limbs usually stand out at right angles like the porcupine's quills, or flop down in the dirt, defying the approach of the ordinary step-ladder, and must be straddled to be got at; then again it is too close, compact, the upper limbs shading the lower, and the best fruit is generally up top, or on the center leader (which takes the strength of the sap) where it is difficult to get at and most likely to be blown off."

There are some varieties, such as White Nelis, Urbaniste, and others, which make much wood and spray that are not suited to this mode of training, and Mr. Austin also thinks that all varieties that are liable to cracking, such as Virgalieu and Beurre Diel, should not be trained in this form, as the fruit is apt to suffer from too much exposure to the sun. He says:

"These varieties need considerable wood and foliage to shade the fruit from the hot sun which hardens the skin, and the first rain after a dry spell would be certain to cause the fruit to crack. I do not say that Diel, Dix, St. Michael, Van Mons, and some others, would not in *some* soils, crack with the best treatment, but I mean to say that they require very different management from the Duchess and Beurre Langedier, which if left entirely to themselves and in rich soil, would hardly produce any fruit at all, only wood and blossoms. I would also instance the Glout Moreceau as a variety throwing abundance of spray and inclined to make wood, and therefore requiring much labor to be kept under, and yet if left to itself in good soil (and not root pruned or transplanted) would be as long as the Dix before bearing, not in fact until it had ceased growing, though it might blossom full each year. I have therefore practised my system upon this variety and obtained fruit much earlier. I might go on and particularize others, but I will only add that with what experience I have had, I should recommend to cultivators not to grow more than two dozen varieties at most, for profit, and study well the habits of these."

The Editor of the *Cultivator* says:

"Captain Austin's pear orchard comprises less than 2 acres, and contains nearly 600 trees, the first having been set nearly 20 years ago. They are in rows 10 feet apart, and 6 feet apart in the rows. The trees are singularly uniform, symmetrical and beautiful. Under his method of cultivation and pruning he gets a good crop annually. In one season he sold his crop, after using what he desired in his family, for \$1,000. The soil is a gravelly loam, not remarkably rich, nor has it been made so by cultivation."

RIPENING FRUITS.

In a recent number of the *Gardeners' Chronicle*, the Rev. M. J. Berkeley well remarks that it is curious how little has been done by physiologists with respect to the changes which take place in fruit, after it has arrived at that degree of maturity when it either separates naturally from the stalk, or when it has arrived at such a state as makes it necessary for the horticulturist to secure his crop. The changes which take place in growing fruit have been to some extent investigated, but the changes which take place after the fruit is gathered are enveloped in obscurity. M. Cahours has shown that ripe apples absorb oxygen and give out carbonic acid, and the higher the temperature of the room the more carbonic acid is evolved. He further shows that "in fruit like Services and Medlars, where the process of bletting takes place, and without which the fruit is not eatable, it is only after vitality has ceased that the requisite chemical changes for economical purposes take place, changes which are sometimes promoted, or at least attempted to be promoted, by sprinkling the fruit with some fermented liquor. 'Air then enters the cells and acts first of all upon the sugar, causing alcoholic fermentation with disengagement of carbonic acid and formation of alcohol, which is in its turn acted upon by the acids of the fruit, thus forming a true ether, which produces the aroma of the fruit. The air then attacks the cell itself, which becomes colored yellow by the azotised membranes of which it is formed.'"

It would be a great boon to horticulturists if some good chemist and physiologist would turn his attention to this matter. We know of no subject connected with pomology on which we stand so greatly in need of definite and reliable information.

It is not yet too late to thin out the fruit on apple, pear and peach trees, except on the earliest varieties. It will pay to thin apples—how much more pears and peaches. You will get as much fruit, and of larger size and of better quality. It will command a higher price, and the trees will not be exhausted from overbearing. Dwarf pears especially should be attended to at once.

VARIETIES OF STRAWBERRIES.

At the last meeting of the New York Farmers' Club, Mr. Carpenter said:

"As the season is approaching when people will begin to think of making new strawberry beds, would it not be well for us at this time to express some opinion as to the best varieties. I do not wish to dictate, but as I have had experience with more than a hundred sorts, and have fruited fifty or sixty sorts this year, I can express my preference, which those who have not had experience may take for what it is worth. Among all those that I have grown this year, of the varieties which can be obtained by the public, I must rank the Russell first. It has improved with me for three years, and is now more prolific even than the Wilson, and less acid, which is a very important matter when sugar is thirty-two cents per pound. The Wilson has qualities for the million and must not be discarded. The Brooklyn Scarlet—one of the Tribune prize strawberries—I take as model of perfection of quality. It is beautiful in color and form, not as prolific as the Russel or Wilson, but has qualities which will always make it a favorite. The Monitor is of good quality, large size and prolific. These two are perfectly hardy. The Monitor may somewhat lack vigor in some localities. The Colonel Ellsworth, I fear, has a taint of foreign blood, which makes the plant tender and liable to fall in fruiting. It is but simple justice to "The Tribune Association" that we should say, and place it upon record among our transactions, that in sending out these plants, more has been done to induce people to plant strawberries than in all that had heretofore been said and written. In the Buffalo Seedling I am disappointed. I shall continue its cultivation. I may also say the same of the Robinson's Seedling, a sort sent out by Dr. Grant. It is one of the most remarkable rank growing plants, with long leaf and fruit stalks, but a shy bearer and the fruit not first rate. French's Seedling is promising. The Austin continues to give good satisfaction, is prolific, and the fruit sells at a high price, and is largely grown by some as a market berry. I procured last year one of Mr. Boyden's new seedlings, now called the Agriculturist. It is certainly a very remarkable sort. I have nothing to compare with it. Plants which grew from plants last summer, and were set in place in October, formed stools which produced this year 220, 240, 294 perfect berries upon each. Some of them were over six inches around. It is true that all new varieties should have more than one year's trial before they are recommended to the public. The fruit of this sort is good, though not the best. May we not hope that experiments will be continued in producing seedlings until we shall

got a strawberry as sweet, high flavored and aromatic as the Brooklyn Scarlet, and as large, hardy and prolific as the Agriculturist. We could not then ask for any further improvement."

THE BLACK EAGLE CHERRY.

DEAR SIR: Knowing you place the Black Eagle cherry among the finest on the list, I herewith send you a sample of my crop. I have three trees in bearing this season, from one of which I gathered *four bushels* last Friday, and the other two, being gathered to-day, will average about *three bushels* each. The trees are for shape and beauty of foliage considered by most persons equal to the horse chestnut, and the fruit can scarcely be seen twenty yards from the tree, as they grow through the tree more than most varieties, though this season they are more in clusters than usual. My early varieties were almost a total failure, and the few we had the birds got a good share of.

At present there is a large mulberry in close proximity, loaded with fruit, on which robbers, cat-birds and a great many others feed, and do not disturb the cherries in the least. Now, I think it a good idea for persons going to plant out a number of cherries to also plant a black mulberry near by, as I feel confident I should not have got more than half my crop if the birds had not had the berries to feed upon.

The Black Eagle has done better for me than any other variety, although the Tartarian is good this season. The Black Eagle is selling at present at from 15 to 20 cents per pound. We also value the trees as equal to any other for shade.

Yours respectfully,

EDWARD W. HESTON.

Philadelphia, June 23, 1864.

REMARKS.—Every word of the above in relation to the Black Eagle is true. There is no cherry equal to it for general cultivation, and there is only one variety superior to it in flavor, the Governor Wood. It is as Mr. H. says, a beautiful tree in form, very much like the horse-chestnut, with a darker foliage, and fully as dense. When the cherries are ripe, the appearance of the fruit, intermingled throughout the tree with the deep green foliage is extremely picturesque.—*Ed. Germantown Telegraph.*

ON light sandy soil that is liable to suffer from drouth, a compost of half muck and half barnyard manure can be applied to great advantage. Now is the time to throw up the muck while the swamps are dry. Thirty loads of such a compost per acre will greatly improve such land, rendering it more retentive of moisture and promoting a more vigorous growth of vegetables.

WHAT HAS BECOME OF THE LICE ?

EDS. GENESEE FARMER : For the past three seasons, the tips of a part of my young apple trees have been covered with leaf-lice, and though often cleared off with a brush dipped in soap suds, tobacco water, or an infusion of aloes, still they were covered again in a few days, and did not finally disappear till the fall frosts. I used also kerosene oil, by dipping the infested branches in it. This was not only effectual for the time with the lice, but it killed the branches. My cherries also were covered at the tips with another species of a darker color, about as prolific and persevering. There was also a few green lice on the peach trees, but they did little damage, and were soon gone. This year not a louse of either of these varieties has been seen on my premises. Last year, early in spring, I washed the trunks of all my trees with strong whale oil soap suds, the soap made like common soft-soap, except using whale oil instead of common grease, and the suds applied by dipping a cloth in it, wrapping it around the tree at the root and then drawing it up the branches. This leaves a current of the liquid passing down the trunks and entering the soil at its root.

Now for the abatement of this nuisance: Am I indebted to the last year's washing, or to the cold of last January, the mercury being down to 10 or 12 below 0? I would like the opinions and experience of others on this subject, for if this washing of the trunks is so effectual, we are easily rid of the pests.

A new idea has just occurred to me. Late last fall, I applied two shovelfulls of shell marl to the roots of each tree. This remained through the winter, and in the spring was spread and dug in. Could this have had the effect? My currant bushes, too, had a showering of the same suds last season, and the same dressing of marl in the fall, and though they were covered with leaf-lice last season, but very few made their appearance this year.

Muskegon, Mich., July 16, 1864.

S. B. P.

CURE FOR CURRANT-WORMS.—A farmer writes from Belleville, N. J., as follows: "I see a good deal in the papers about currant-worms and how to destroy them. I think the 'sovereignest thing on earth' is a good crop of chickens. A neighbor told and showed me the other day how they cleared his, and as I am working in the garden this forenoon I see the same thing going on, only the hen is not cooped and climbs into the bushes, and picks and drops down to the chickens, beside what she shakes off. A shake of the bushes where the hen is cooped would be proper."—*Am. Inst. Farmers' Club.*

This might be effectual, but if the hen is not cooped the currants will go too. Our hens have had free range among our currant bushes, and from a hundred we have had scarcely a peck of berries. The worms were only checked by the lime that was put on and the chickens and turkeys eat the currants.

SHALL APPLE ORCHARDS BE CULTIVATED ?

THIS question has been raised by an experienced horticulturist, who contends that they should not, while the mass of opinion is decidedly the other way. The *Philadelphia Culturist* has the following remarks on the subject:

"We have known orchards to bear fruit well, which for many years were permitted to lie in grass, but eventually they gave out, and ceased to be productive. On the other hand, we know of orchards which for thirty years have been cultivated as regularly as other portions of the farm, and the results have been the continued health of the trees, and unless destroyed by frosts, a regular average annual yield. The stirring of the soil appeared to impart new energy to the trees. They not only presented a healthy and vigorous appearance, but yielded handsome returns yearly. The crops, it is true, may not have been as luxuriant as on those parts of the farm not so much shaded, but every bushel of oats, corn, potatoes or turnips might properly be set down as so much clear gain. It is well to remember that deep plowing in an orchard is not advisable. A good evidence of the value of cultivation is shown by the fact that when trees run to wood, and yield little or no fruit, the luxuriant growth of the wood can be readily checked, and fruitfulness promoted by putting the orchard in grass for a couple of years. If, at the end of that period, shallow plowing is resorted to, the beneficial effects will be apparent to the most casual observer."

PASSE HAMBURGH GRAPE.—The English gardeners say this grape is well worthy of culture, from its being the earliest and sweetest of the Hamburgs. The bunches are large and handsome, and black as jet, and the berries, although not so large as Wilmot's Victoria, are better flavored. Hovey, of Boston, says it is the best forcing grape he has ever tried, being a fine grower and an abundant bearer. He says it is the best of its class to plant in small houses for producing early crops.

If we should have rainy weather, and the soil has been well cultivated, strawberries may be set out this month and produce a good crop next season. The transplanting should be done with care. If watering is necessary let it be thorough. A pailful to three plants, applied as fast as the ground will absorb it, is none too much. Set in rows three feet apart, and the plants fifteen inches apart in the rows.

PINCH off the lateral shoots from melon and cucumber vines, and head-in the runners two or three leaves above the fruit. This will throw the sap into the fruit, and it will be ripe earlier, be larger and of better quality.

Indies' Department.

ORIGINAL DOMESTIC RECEIPTS.

Contributed to the Genesee Farmer.

SWEET GREEN TOMATO PICKLES.—Peel and slice two gallons of green tomatoes, five tablespoonfuls of ground mustard, three gills of mustard seed, two tablespoonfuls of ground pepper, two tablespoonfuls of ground cinnamon, one tablespoonful of cloves, one pound of brown sugar, three quarts of vinegar. Boil all together until quite done. If you choose, you may use one spoonful ground and a portion of cinnamon bark. Celery tops improve the flavor. These are excellent.

SAGO PUDDING.—One pint of milk, three tablespoonfuls of sago, one-half cup of butter, one cup of sugar, four eggs. Soak the sago in water two hours; then put the milk on the stove and stir the sago in; add the butter and sugar after it is cold; stir in the whites and yolks of the eggs beaten separately.

TO COOK BEANS WITHOUT PORK.—Put them into boiling water, without soaking; change the water three times, letting them boil a few minutes each time; the third time, add salt sufficient to make them palatable, boil nearly dry, and warm up with a little fresh lard or butter.

COCONUT CAKE.—One and a half coffee cups of sugar, one-half coffee cup of butter, whites of three eggs, teacup of milk, one and a half teaspoonfuls of soda, three teacups of flour, one teaspoonful of cream-tartar, one grated coconut. Save a handful and put in the frosting.

WATER DROP CAKE FOR DYSEPTICS.—One pint of water, one egg, one spoonful of salt, not quite a pint of flour. Beat together thoroughly, and put it into the oven without a moment's delay.

BREAKFAST CAKES.—Three eggs, three cups of wheat flour, three cups of unbolted flour, a little salt, one quart of milk. Bake quick. Some use sour cream and soda instead of sweet milk.

SUET PUDDING (BOILED.)—One cup of suet chopped fine, one cup of raisins, one cup of molasses, two cups of flour, one cup of milk, a little soda. Cinnamon and cloves to your taste.

DOUGH NUTS.—Two coffee cups of milk, one coffee cup of butter, one coffee cup of sugar, one coffee cup of yeast, two eggs. Spice to your taste. Flour enough to roll out.

BREAD CAKE.—Two cups of dough, one-half cup of sour milk, one-half teaspoonful of soda, one cup of butter, two cups of sugar, four eggs, nutmeg and a few raisins.

ROLLED PUDDING.—Make soda biscuit crust; roll in currant jam, or any other tart fruit. Let it boil three-quarters of an hour, or steam two hours.

DRESSING FOR CABBAGE.—Cut your cabbage fine in a dish, and sprinkle salt and pepper over it; take one egg, a teaspoonful of sugar, one-half spoonful of flour, one-half teacup of sweet cream, the same of vinegar, a very small piece of butter. Beat all together and let it boil; then pour over the cabbage while hot.

TOMATOES, with meat, raw, should be sliced up in vinegar, salt and pepper, like cucumbers. For tea, use sweet cream and sugar; they are almost as good as strawberries.

GREEN APPLE PIE.—Stew and strain the apples, grate the peel of a fresh lemon, or rose water and sugar, to your taste. Bake in a rich paste half an hour.

BOILED BATTER PUDDING.—Two teacups of milk, four eggs; stir in flour until a stiff batter; a little salt. Let it boil nearly two hours.

DARK ROOMS.—A dark house is almost always an unhealthy house, always an ill-aired house, always a dirty house. Want of light stops growth, and promotes scrofula, rickets, &c., among the children. People lose their health in a dark house, and if they get ill they can not get well again in it. Three out of many "negligences and ignorances" in managing the health of houses generally, I will here mention as specimens. First, that the female head in charge of any building does not think it necessary to visit every hole and corner of it every day. How can she expect those who are under her to be more careful to maintain her house in a healthy condition than she who is in charge of it? Second, that it is not considered essential to air, to sun, and to clean rooms while uninhabited; while it is simply ignoring the first elementary notion of sanitary things, and laying the ground ready for all kinds of disease. Third, that the window, and one window, is considered enough to air a room. Don't imagine that if you who are in charge, don't look to all those things yourself, those under you will be more careful than you are. It appears as if the part of the mistress was to complain of her servants, and to accept their excuse—not to show them how there need be neither complaints made nor excuses.—*Miss Nightingale's Notes on Nursing.*

A GOOD HOUSEWIFE.—A good housewife is one of the first blessings in the economy of life. Men put a great value upon the housewife qualifications of their partners, *after* marriage, however little they may weigh with them *before*; and there is nothing which tends more to mar the felicity of married life than a recklessness or want of knowledge in the new housekeeper of the duties which belong to her station. We admire beauty, and order, and system, in every thing, and we admire good fare. If these are found in their dwelling, and are seasoned with good nature and good sense, men will seek for their chief enjoyments at home—they will love their home and their partners, and strive to reciprocate the kind offices of duty and affection. Mothers that study the welfare of their daughters, will not fail to instruct them in the qualifications of married life; and daughters that appreciate the value of these qualifications will not fail to acquire them.

Miscellaneous.

THE MERRY DAYS OF CHILDHOOD.

To the merry days of childhood
How oft my thoughts return,
When I scrambled through the wild wood,
And paddled in the burn;
Or, victim of a wayward will,
In spite of threats and stripes,
Munch'd pears and unripe cherries till
I whimper'd with the gripes.

Ah, would I could the hours recall
When kind friends round me smiled,
While I, the darling of them all,
A mischief-loving child,
Made bonfires in the fender
With dear uncle John's cigars,
Or burnt my fingers tender
Roasting chestnuts 'twix the bars.

Such days, alas! too soon depart,
With all their joyous train,
Yet, treasured up within my heart,
Some vestiges remain.
I glory still through woods to rove,
Or wade the sparkling stream,
And still retain my early love
For strawberries and cream.

But, above all, one passion holds
It's sway as firm as ever—
A fondness whose encircling folds
No length of time can sever.
When cares oppress, or anguish thrills,
Or languor makes me moody,
My panacea for all such ills
Is seeing Punch and Judy!

AN English paper contains the following advertisement: "Wants a situation, a practical printer, who is competent to take charge of any department in the printing and publishing house. Would accept a professorship in any of the academies. Has no objection to teach ornamental painting and penmanship, geometry, trigonometry, and many other sciences. Is particularly suited to act as pastor to a small Evangelical Church, or as a local preacher. He would have no objection to form a small but select class of interesting young ladies to instruct in the highest branches. To a dentist or chiropidist he would be invaluable, as he can do almost anything. Would board with a family, if decidedly pious."

A WESTERN COURT has recently decided that a kiss is a valid consideration. It seems that an old bachelor—these old bachelors, by the way, are useless institutions, anyhow you can fix it—offered a young lady a pony for a kiss. The young damsel accepted the offer, and gave the kiss; but the mean old curmudgeon, after receiving the oscillatory salute, refused to stand by his part of the contract, on the ground that it was not as hearty and much of it as he had bargained for. A suit was therefore entered, and the jury decided that the pony or its value should be given to the girl.

SMALL TALK.—Said a bed-bug to a musketo, whom he chanced to meet the other evening on an expedition: "How is it that you manage to extract so much more of life's current than myself, when I can bite as severely as you can? How can you explain?" "For particulars see small bills," quoth the musketo, with dignity.

HOW THE RACK WAS ABOLISHED.—Torture applied to extort confession was discontinued, it is said, in the public courts of Portugal, in consequence of the following circumstances: A conscientious judge, having observed the effects of the rack upon supposed criminals, in making them confess anything, to the sacrifice of their lives, to get released from the torture, determined to try an experiment. It was a capital crime in that country to kill a horse or mule; and he had one of the former which he much valued. He took care one night to have all his servants employed, so that no one but the groom could go into the stable. When all were fast asleep in their beds he stole thither himself and cut the horse so that he bled to death. The groom was apprehended and committed to prison. He plead not guilty; but the presumption being strong against him, he was ordered to the rack, where the extremity of the torture soon wrung from him a confession of the crime. Upon this confession he had sentence of hanging passed on him, when his master went to the tribunals and there exposed the fallibility of confessions obtained by such means, by owning the fact himself, and disclosing the motives which had influenced him in making the experiment.

THE PASHA OF EGYPT.—I was surprised to find that this Mahmoudieh Canal, although cut by the present Viceroy, at an enormous cost of money and of human life, through a country perfectly flat, is as winding in its course as a path through a labyrinth. On asking Demetri, the dragoman, if he could explain the cause of this, he answered me by a story, for he had a story ready for almost every occasion. The very same question, he says, was lately put to Mohamed Ali by a French engineer traveling through Egypt. The Pasha, after a moment's reflection, said to the engineer: "Have you ever seen rivers in France?" "Yes, many," was the reply. "Are they straight or crooked in their course?" "They are generally crooked." "Who made the rivers?" inquired the Pasha. "They were made by Allah," said the astonished engineer. "Then, sir," concluded the Pasha, triumphantly, "do you expect me to know and do better than Allah?" The poor engineer had no reply to make to this strange argument, so he took his leave and went his way.—*Murray's "Egypt."*

THE Brussels carpets of England are woven on looms invented by an American and bought of him. Bigelow, an American, went to England to study carpet weaving in the English looms, but English jealousy would not allow him the opportunity. He took a piece of carpeting and unraveled it thread by thread, and combined, calculated and invented the machinery on which the best carpets of Europe and America are made.

A DENTIST presented a bill for the tenth time to a rich skinflint. "It strikes me," said the latter, "that this is a pretty round bill." "Yes," replied the dentist, "I've sent it round often enough to make it appear so, and I have called now to get it squared."

THE pleasure of doing good is the only one that does not wear out.

Young People's Page.

MRS. ROBERT WHITE AND HER FAMILY.

THE heads of wheat grew heavy and golden under the summer's sun, and a mother quail looked out with an anxious eye one morning from her nest in the fence corner. The reapers were whetting their sharp sickles, and laughing and singing and talking as merry as could be. In all probability they would find out her nest, and then what would become of her poor little flock? There were full a "baker's dozen" of them to look after, and no wonder she was anxious. But Mrs. Robert White was keen as a brier which grew over her head.

"We'll show them a trick, little dears," said she, with a merry chuckle. "When I give this sort of a cry, do you dive, each by himself, into the tall grass on the other side of the fence, and I will take care of the rest. Only mind, when you hear me whistle 'Bob White' quite softly, all come back to the nest again, for then the danger will be over."

Sure enough, that very afternoon she had occasion to put her scheme into practice.

"Hallo!" said the farmer's son, "here is a quail's nest, boy. If we will take home the little ones, they will grow up as tame as chickens. The old brown hen hatched out two last year, and they stayed about the barn all winter."

But when Master Tom sought for his prize he found an empty nest. Just before him, though, was the old mother-bird, panting and beating the ground with her wings at a terrible rate, fluttering slowly on like a wounded bird, but discreetly taking a course quite different from that which her nestlings had taken. She seemed so easy a prize, the boys did not greatly exert themselves, but walked leisurely on in the path she indicated, until at last, by an artful dodge, she quite eluded them. It was a skillful piece of generalship, and honorable to her motherly feelings. The boys were called off to their work again, and the happy mother awaited their departure before she called together her little flock.

"Eat your suppers in peace, my darlings," she said, when the last reaper had left the field, "and remember the lesson I have taught you to-day. It may come useful a great many times in your lives. Our tall enemy is so avaricious, he will always follow the largest prize, even if it is not half so sure. But he got paid to-day as avaricee often does, by disappointment and vexation." And then, in her glee, she flew up on the top of a fence rail, and sang a curious, little, nonsensical dunning song for her own fun, which some people interpret this way:

"Bob-o'-link, Bob-o'-link to Tom Denny. Tom Denny, come pay me the two-and-sixpence you've owed me more than a year and a half now! 'Tshe, 'tshe, 'tshe," and down she dove in the grass again.—*Merry's Museum.*

WHAT sort of birds make cool summer pantaloons? Russia ducks.

USE OF CAT'S WHISKERS.

EVERY one must have observed what are usually called the whiskers, on a cat's upper lip. The use of these, in a state of nature, is very important. They are organs of touch. They are attached to a bed of close glands under the skin; and each of these long hairs is connected with the nerves of the lip. The slightest contact of these whiskers with any surrounding object is thus felt most distinctly by the animal, although the hairs of themselves are insensible. They stand out on each side of the liou, as well as in the common cat; so that, from point to point, they are equal to the width of the animal's body. If we imagine, therefore, a lion stealing through a covert of wood in an imperfect light, we shall at once see the use of these long hairs. They indicate to him, through the nicest feeling, any obstacle which may present itself to the passage of its body; they prevent the rustling of boughs and leaves, which would give warning to his prey, if he were to attempt to pass through too close a bush; and thus, in conjunction with the soft cushions of his feet, and the fur upon which he treads, they enable him to move toward his victim with a stillness even greater than that of the snake, which creeps along the grass, and is not perceived until it is coiled around its prey.

BOYS, HELP YOUR MOTHERS.—We have seen from two to six great hearty boys sitting by the kitchen stove, toasting their feet and cracking nuts or jokes, while their mother, a slender woman, has gone to the woodpile for wood, to the well for water, or to the meat house to cut a frozen steak for dinner. This is not as it should be. There is much work about the house too hard for women. Heavy lifting, hard extra steps which should be done by those more able. Boys, don't let your mother do it all, especially if she is a feeble woman. Dull, prosy housework is irksome enough at best. It is a long work, too, it being impossible to tell when it is quite done, and then on the morrow the whole is to be gone over with again. There is more of it than one is apt to think.

A LITTLE Massachusetts boy was one day playing with some knitting-needles, when he was about two years old. His mother passed through the room, and said to him: "You mustn't lose those needles; they are not your needles, they are mine." As she left the room she heard the little boy saying to himself: "No, I mustn't lose these needles; they're not my needles. If I should lose them, I should be *despised*; and when I grow up to be a man, people will look at me and say: 'Where's those needles?'"—*Little Pilgrim.*

TRY this, some of you: Fasten a nail or key to a string, and suspend it to your thumb and finger, and the nail will oscillate like a pendulum. Let some one place his open hand under the nail, and it will change to a circular motion. Then let a third person place his open hand upon your shoulder, and the nail becomes in a moment stationary.



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Notes on the Weather from June 15th to July 16th, 1864, with some Comparisons.

THE mean of June, the first half, was 3.4° below the general mean or average. The last half was much warmer, being 5.7 degrees above the average; hence the mean of the month was 67.1°, or 1.1° above the general mean. From the 16th to the 26th inclusive, was the heated term of June—great heat for a longer period than we have had for many years, if at all, in June. To be a warm day, the mean must be 70° or more. In this hot period the mean heat of the eleven days ranged from 76.3° to 83.7° on the 25th. If the thunder shower had not occurred at 8 P. M. and lowered the temperature 10° or more, the 26th would have been the hottest day. At 2 P. M. the temperature of the 26th was 91°, on the 25th 92°, and on the 24th 93°, which is the same as on June 29th, 1856, and higher than in any intervening June.

The rain of the month was 1.57 inches—a small quantity for June. Still the earth suffers little yet. The springs are not low after so great rain in May. Indian corn has made good progress. The half month gave us much clear and pleasant weather, except for the heat.

JULY began rather warm, and passed to a little cooler. The hottest noon was 92° on the 10th, which was the hottest day in this first half, 79.7°. The coldest mornings were the 4th and 5th, 60°, and the coldest day, 4th,

gave for its mean 64.7°. The mean heat of this half is 72.9°, and the general mean 59.7°, or 3.2° less than the present. The average for this half last year was 74.2°, with much rain; so that the present drouth makes this weather feel very warm and oppressive. In this half the rain has been only 0.55 inch. Vegetation, except Indian corn, has suffered considerably, and that begins to show the need of rain. The consequence is, that the fruits and many vegetables fail of their early prospective abundance. The Genesee is pretty low. More rain has fallen at the west part of our State, it is said. It is to be hoped the clouds will soon pour down the treasures from "the River of God which is full of water." Let our dependance lead to trust and gratitude.

Half Volume of the Genesee Farmer.

WITH the July number commenced a half volume of the *Genesee Farmer*. There never was a better time for our friends to make a special effort to increase the circulation and influence of the paper. They have done nobly, and we trust will continue their efforts during the present month. After September we shall be compelled to advance our rates, but shall continue to receive subscriptions at our old terms for the next four weeks. Let all who feel an interest in the *Farmer* see what they can do for us the present month:

Our terms for the half volume are:

Single subscribers.....	\$0 40
Five subscribers.....	1 50
Eight subscribers.....	2 00

And larger clubs at the same rate, (25 cents each.)

For sixteen subscribers at twenty-five cents each, we will send, prepaid by return mail, a copy of Miner's *Domestic Poultry Book*.

For twenty-four subscribers we will send, prepaid by return mail, a copy of Emerson & Flint's excellent work, *The Manual of Agriculture*.

A Good Washing Machine.

A YEAR since we purchased a washing machine which was highly recommended. The apparatus was set up and used once, twice, three times, and then consigned to the cellar or garret, we never inquired which—indeed, were careful not to make the most remote inquiry as to its fate.

A few weeks ago Mr. Doty sent us one of his clothes washers, "family size," express charges prepaid, with the simple request—"Try it fairly and thoroughly, and if it does not suit send it back." It *does* suit, and we shall *not* send it back. It is so exceedingly simple that it is almost impossible to believe that it is of any value until it has been fairly tested; but after experiencing the luxury of *sitting down* and washing an indefinite amount of soiled clothes with not as much physical labor as is required to work a sewing machine, its simplicity ceases to be an objection. The manufacturer is William M. Doty, 23 Elm street, New York.

"A WOOL GROWERS' CONVENTION" will be held in this city on Wednesday, September 21st, during the State Fair.

The Markets.

OFFICE OF THE GENESEE FARMER, }
ROCHESTER, N. Y., July 27, 1864. }

SINCE our last report the price of all kinds of farm products has again advanced. There can no longer be any doubt that the harvest will be sadly below an average. Owing to the great drouth, spring crops in this, and in many parts of the West, Pennsylvania and Canada, will, with the exception of corn and beans, be an almost entire failure.

The rain of Monday last will be of much benefit to corn and potatoes. Early potatoes were drying up, and corn was suffering on all but low, moist soils. On clay land corn is almost an entire failure. Beans look well, and the rain is in time to be of great benefit. There will be an immense crop. Buckwheat has been sown quite extensively, and if the fall is favorable will do something towards supplying the deficiency of oats and other spring grains. From all that we can learn, taking the country as a whole, the deficiency in the crops this year will be at least 35 per cent. below an average. Winter wheat in this section will be better than was expected, though the midge has injured late varieties very seriously. Some farmers say that this insect has destroyed from one-third to one-half the crop.

The probability of a general war in Europe seems to gain strength, and the price of breadstuffs has advanced somewhat in consequence. The crops are by no means equal to those of last year, and the renewal of the Danish blockade will curtail the supply. There is every probability that prices will be higher in the English and French markets.

Gold, which was 125 this time last year, is now 260! In other words, if a bushel of wheat brought \$1.25 this time last year, it ought to bring \$2.60 now. If wool was worth 75 cents $\text{\textcircled{B}}$ this time last year, it ought now to bring, leaving entirely out of the question the increase in duty, \$1.50 $\text{\textcircled{B}}$.

With the present premium on gold, nothing but the splendid crops in England and France in 1863 has saved us from seeing wheat at \$4.00 $\text{\textcircled{B}}$ bushel! Wheat has been so low in England that it has been fed to cattle. In October, 1860, the best quality of American red wheat sold in London for \$2.00 per bushel. It is now quoted at \$1.26@1.32—say 70 cents lower than in 1860. In other words, if wheat was now as high in England as it was in 1860, we should get 70 cents more per bushel for it *in gold* than at present; and this 70 cents in gold is equal to \$1.82 in our currency. Instead of wheat being worth \$2.50 in New York as at present, it would be worth \$4.32.

The stringency in the money market is now so great as to afford a temporary check to speculation. It is not probable that this scarcity of currency will continue very long, and prices will advance. The wool market especially feels this stringency in the money market. Not a pound of wool can be imported at present prices. In fact, large quantities of foreign wool have been recently exported from New York. Should the present premium on gold continue, there can be no doubt that wool will advance materially.

Farmers generally are willing to sell at \$1.00 $\text{\textcircled{B}}$, and a considerable quantity has been sold at 95 cents to \$1.00. We expect to see it much higher.

The drouth has so seriously affected the potato crop that new potatoes in this city readily bring \$3.00 per bushel, and old potatoes sell for \$2.00 to \$2.50.

Onions command \$2.25 per bushel!

Good hay in this city brings \$20 per ton.

NEW YORK CATTLE MARKET.—The price of beef cattle, which had fallen a little, again advanced one cent $\text{\textcircled{B}}$ at the last cattle market. There was a very short supply, and the quality of many of the cattle offered was quite inferior. The best cattle brought 19 cents $\text{\textcircled{B}}$, estimated dressed weight. The poorest are quoted at 11@12c. $\text{\textcircled{B}}$. These latter, the *Tribune* says, were "only valuable for their hides and bones. They would not afford fat enough to grease the boots that might be made of their skins." The drouth is compelling many farmers to sell their cattle half fat. This may lower the market for the present, but it will tend to advance prices in the fall and winter.

Fat sheep were never so high at this season as now, bringing from 10 to 11c. $\text{\textcircled{B}}$, live weight. There is a large number of sheep in the country, but the high price of beef keeps up prices.

Hogs have been higher than ever before known. The effect of this, in addition to the high price of corn, has been to induce farmers to part with their half-fat hogs, and the last market was rather over-stocked with pigs of this description, and prices were a trifle lower in consequence. Good hogs find ready sale at 10½ to 11½ cents $\text{\textcircled{B}}$, live weight! Ordinary and inferior, 9 to 10 cents.

The New York State Agricultural Society

Offers a premium of \$253 for a steam engine, or other steam apparatus that shall successfully introduce cultivation by steam, with apparatus for pulverizing the soil at as cheap a rate as now practiced upon the farm, and work as well done, and available for use upon the farms of our State.

The appropriation of \$2,000 to test the practicability of manufacturing flax cotton, to be expended under the direction of the Society, is still open to competition to all who are investigating the subject.

The following premiums are offered for essays and scientific investigations: \$30 for the most approved experiments in the use of gypsum; \$20 for an essay on horses, with directions as to breeding, breaking and rearing; \$20 for an essay on draining.

The Society also offers 1st, a silver cup, value \$30, and 2d, a silver cup, value \$20, for approved reports, founded on actual experiment, on the comparative earliness, productiveness and profits of the different varieties of wheat generally sown, or of any new and superior variety. At least six varieties to be sown, one-fourth of an acre each. The ground to be as near alike as practicable, and to be cultivated in the same manner; produce to be given in measure and weight; time of ripening of each, and sample of each variety to be exhibited at the winter meeting of 1865 or 1866.

Also a premium of \$25 for an approved report of ex-

periments in saving, preparing and applying liquid manure, and \$25 for a report of similar experiments in regard to compost manures.

Agricultural Exhibitions for 1864.

State Fairs.

New York.....	Rochester.....	Sept. 20-23
Illinois.....	Decatur.....	Sept. 12
Pennsylvania.....	Easton.....	Sept. 27-30
Michigan.....	Kalamazoo.....	Sept. 20-23
Indiana.....	Indianapolis.....	Oct. 2-8
Ohio.....	Columbus.....	Sept. 13-16
Vermont.....	White River Junction.....	Sept. 13-16
Iowa.....	Burlington.....	Sept. 27-30
Wisconsin.....	Burlington.....	Sept. 26-30
Canada West.....	Hamilton.....	Sept. 26-30
New Brunswick.....	Frederickton.....	Oct. 4-7
Nat. Pomological Soc'y.....	Rochester.....	Sept. 13
N. E. Ag'l Society.....	Springfield.....	Sept. 6-9
Wool Growers' Con.,.....	Rochester.....	Sept. 21

County Fairs.

NEW YORK.

Orleans.....	Albion.....	Sept. 14-15
Queens.....	Jamaica.....	Oct. 5-6
Ontario.....	Canandaigua.....	Sept. 28-29
Broome.....	Binghamton.....	Sept. 13-16
Jefferson.....	.....	Sept. 15-16
Franklin.....	Malone.....	Sept. 27-29
Cattaraugus.....	Little Valley.....	Sept. 27-29
Chautauque.....	Fredonia.....	Oct. 4-6

OHIO.

Twinsburg U. Ag. So.,...	Twinsburg.....	Sept. 7-9
Columbiana.....	.....	Sept. 21-23
Muskingum Valley.....	Zanesville.....	Sept. 6-9
Fulton.....	Ottokee.....	Sept. 21-23
Butler.....	Maplewood.....	Oct. 4-7

ILLINOIS.

Bureau.....	Princeton.....	Sept. 13-16
Dewit.....	.....	Oct. 5-8
Kankakee.....	Kankakee City.....	Sept. 7-9
Randolph.....	Sparta.....	Oct. 5-7
Schuyler.....	.....	Sept. 28-30
Vermillion.....	Catlin.....	Oct. 11-14
Whiteside.....	.....	Sept. 27-30

PENNSYLVANIA.

Union Ag. Association,...	Burgettstown.....	Oct. 6-7
Bucks.....	Newtown.....	Sept. 27-28

MAINE.

North Waldo.....	Unity Village.....	Oct. 12-18
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IOWA.

Floyd.....	Rockford.....	Sept. 14-15
Van Buren.....	Sept. 15-17

Labor.

FARM LABOR has been very scarce in this neighborhood. As high as \$3.00 a day and board has been paid for hands to bind up wheat after the machine. Farmers should endeavor to accommodate each other all they can, by changing help, so that there would not be any necessity for paying such exorbitant wages. More can be done in this way than is generally supposed. There are men enough to do all the work if we were willing to help each other in pressing emergencies.

New England Agricultural Society.

THE New England Agricultural Society will hold their first fair at Springfield, Mass., September 6-9. The farmers and horticulturists of the New England States manifest much interest in the matter, and there will undoubtedly be a grand display. Premiums are offered amounting to \$10,000. Governor Andrews, of Massachusetts, will deliver the address. Particulars can be obtained by addressing J. N. Bagg, Springfield, Mass.

Book Notices.

A WALK FROM LONDON TO JOHN O'GROATS, with Notes by the Way. By Elihu Burritt. New York: Charles Scribner.

This book is so beautifully printed, so well bound and so finely illustrated, and the author's prestige is such, that the reader is somewhat disappointed with the amount of information which he gathers from its pages. The photograph portraits of distinguished agriculturists give it a character which leads you to expect something valuable on English agriculture. The accounts of Tiptree Hall, of Babraham, of Chrishall Grange, and of the farm at Settyton, are minute and very interesting, but there is a want of that clear appreciation of the reasons of the success of English agriculture—an absence of a true understanding of the principles which have made these places famous, that we did not anticipate from a book written by such a man as Elihu Burritt. Probably though, the very defects which render the book agriculturally a failure will make it attractive to the general reader. It meets too, very pleasantly, a want in our libraries of some book which shall give in an accessible form an account of the practice on these farms which are constantly talked of in all the agricultural journals. We know of no other book where this is so well and so pleasantly done. The beauty of this edition has a peculiar attraction of its own, and the photographs of Mechl, Jonas Webb, Samuel Jonas—who cultivates 3,000 acres—and of Anthony Cruickshanks, who owns the largest herd of short-horns in the world, are in themselves most interesting and valuable.

GENERAL BUTLER IN NEW ORLEANS. By James Parton. New York: Mason Brothers. People's Edition. Price, 75 cents.

This edition of Parton's Life of Butler is, with the exception of some of the longer documents, which have been omitted or abridged, identical with the more expensive one published some time since, whose merits and demerits have been sufficiently discussed.

American Pomological Society.

THE American Pomological Society will hold its Tenth Biennial Session in this city, commencing September 13, on the week previous to the State Fair. It is believed that this will be one of the most interesting and important meetings ever held by this useful Society. Packages of fruit may be addressed "American Pomological Society, care of James Vick, Rochester, N. Y." Mr. Vick is Secretary of the Society, and Hon. M. P. Wilder, of Boston, Mass., President. Either of these gentlemen will cheerfully furnish information to those who desire to be present or to send fruit.

To Advertisers.

THE circulation of the *Genesee Farmer* has nearly doubled the present year. But we have not yet advanced our advertising rates, though we shall be compelled to do so if the present price of paper continues. We feel confident that those who have any useful article that is needed by farmers and horticulturists will find advertising in the *Genesee Farmer* a profitable investment.

Cure for Corns in Horses' Feet.

PARE down the hoof carefully, cutting out as much of the corn as possible without making it bleed. Then put on some muriatic acid, and the cure will be effectual.

Inquiries and Answers.

"Does gas-lime contain ammonia?"—G. R.

Not as much as is generally supposed. Prof. S. W. Johnson gives the result of analyses of three samples of gas-lime, made in his laboratory by E. K. Twining. Perfectly fresh gas-lime was found to contain 0.8 per cent. of ammonia. Gas-lime a week old contained 0.039 per cent., and a sample which had been exposed to the weather for about twelve months contained 0.035.

Perfectly fresh gas-lime, therefore, contains nearly twice as much ammonia as common barn-yard manure; but a few days exposure dissipates it so rapidly that nineteen-twentieths of it is lost in a week. It seems clear, therefore, that whatever value gas-lime may have, the slight quantity of ammonia it contains can have little effect. It contains a considerable quantity of hyposulphite of lime, which by exposure is rapidly changed into sulphate of lime, or plaster. It also contains about 5 per cent. of gas-tar—a substance which, however useful it may be to drive away noxious insects from plants, can hardly be supposed to have any value as a fertilizer. In fact, our own opinion, based upon some effects we have witnessed from the use of a similar article, is, that this gas-tar is actually deleterious to vegetation, especially when used in direct contact with the seed.

I SET out some ornamental trees and shrubs this spring. I cut them back considerably, and they put out leaves and appeared to do very well. But the recent dry weather has affected them seriously. They look decidedly feeble, and one or two of them are apparently dead, and I fear some of the rest will not recover. What can I do with them?—A YOUNG FARMER.

If they were set out in grass, dig a space of two feet round each tree and shrub, and then water *thoroughly*—putting at least two pails of water to each plant. Then mulch the ground with cut grass, or anything of the kind that will check evaporation. Cut off all the branches from the trees, and head in the shrubs as much as possible. In this way you may save them.

WOULD it be a good plan to have pulverized charcoal introduced into horse manure for the purpose of fixing the ammonia and preventing its escape?—E. A. SMITH, *Suffolk county, L. I.*

We do not think it would have much effect in arresting the escape of the ammonia. Covering the heap with dried muck or loamy soil would be just as good. Keep the heap as firm as possible, and this will have a tendency to check rapid and injurious fermentation—or better still, do not let it be in a heap by itself, but spread it over the barnyard and mix it with other manures.

IN the rear of my barn-yard there is a fall of ten feet in as many rods. Would it be advisable to carry the washings of the yard underground that distance, or far enough to run it into a wagon for distribution on grass and wheat during the winter and early spring?

My yard is basin-shape, the center being nearly three feet lower than the edges. I have conductors on my barn and sheds, so that but little more water gets into the yard than falls on the surface. Notwithstanding this precaution, the yard is generally full of water, which of course retards the decomposition of the manure. Within a week I have removed the bottom of a straw-stack placed in the center of the yard last August,

which shows no more indication of decay now than when put in. It is colored straw—nothing more. Would the liquid possess sufficient value, as a manure, to pay the expense of transportation? An early answer is solicited from you or some of the correspondents of the *Farmer*.—W., *Berlin, Ohio.*

Will our correspondents give us their views on this subject?

Will some one please tell how to keep cabbage through the winter, so it can be got at any time, without keeping it in the cellar?—A. B. W.

Brinckerhoff's Churn.

We have been using this churn for over two months, and take pleasure in recommending it to our readers. It can be kept perfectly clean with little trouble, is easily worked, and is not liable to get out of order. A pamphlet, containing a description of the churn, with some excellent remarks on butter making, can be obtained, gratis, by addressing Mr. Jacob Brinckerhoff, Auburn, New York.

Special Notices.

London Club Coffee.—The advertisement of this Coffee will be found on page 261 of this number of the *Farmer*, and is worthy the attention of the reader. Its merit is attested by parties well and widely known—by gentlemen of standing, who speak of it from their own personal knowledge, and candidly commend it to public favor.

Send for a Circular of Grover's Patent Swing BEAM PLOW. See advertisement in May number of the *Farmer*. au2t D. C. ALLING, Rochester, N. Y.

ADVERTISEMENTS.

A FEW short advertisements of interest to farmers—and only such—will be inserted in the *GENESEE FARMER* at twenty-five cents a line, or \$2.50 per square, or \$25 per column, each insertion, payable in advance.

S. M. PETTENGILL & CO.,
No. 37 Park Row, New York, and 6 State street, Boston, are our Agents for the *GENESEE FARMER* in those cities, and are authorized to take advertisements and subscriptions for us at our lowest rates.

THE GENESEE FARMER:

A MONTHLY JOURNAL OF AGRICULTURE AND HORTICULTURE.

Published at Rochester, N. Y., by

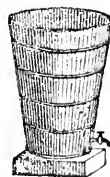
JOSEPH HARRIS.

Terms—INVARIABLY IN ADVANCE—Seventy-five cents a year; six copies for Three Dollars, (only fifty cents each.)

MADE FROM 20 CENTS!—Call and examine, or ten samples sent free by mail for 20 cents. Retail for \$2 by R. L. WOLCOTT, 170 Chatham Square, N. Y. my'64-1y

BASS BARK.

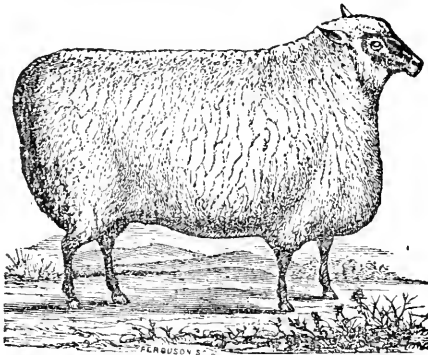
WE can furnish a fine article of BASS BARK prepared for Budding at the rate of 30 cents per pound, or \$25 per 100 pounds. THOMAS & HERENDEEN.
au1t Macedon, Wayne county, N. Y.



THE KEDZIE FILTER.—This Filter possesses every *practical* and *scientific* arrangement for the objects intended, viz: rendering the most impure rain and river water free from all decomposed organic matters and gases, color, taste or smell. *Pure water* is the chief conservator of the human system, and can be surely obtained by using this, the best portable Filter known. They are durable, convenient and cheap: can be transported in safety any distance and are sure to give satisfaction.

Manufactured by
JAMES TERRY & CO., Rochester, N. Y.
au3t Descriptive Catalogues sent free.

Lalor's Sheep and Lamb



DIPPING COMPOSITION.

CURES SCAB, TICKS and LICE on SHEEP or CATTLE—adds over a pound of wool to the fleece, improves its quality, and adds to the general health of the sheep, without danger from taking cold.

For particulars apply to

LALOR BROTHERS, Utica, N. Y.

Agents wanted for every State. au1t

DOTY'S CLOTHES-WASHERS

Are Simple, Durable and Cheap,
MAKE WASHING EASY, AND SAVE CLOTHES.

THE Agricultural Editor of the New York Tribune, having tried them, reports as follows:

EAST YONKERS, N. Y., *Washing-day*, April 18, 1864.

FRIEND DOTY: Your last improvement of your Washing Machine is a complete success. A little slim girl of ten years uses it; and an invalid lady, who has to sit down to work, can wash without fatigue. You have won blessings from all the women about this house; be assured of that. Your friend,
SOLON ROBINSON.

After long use in his family, the Rev. Wm. V. V. MABOX, in view of the great saving of clothes as well as of labor, says, they are "a greater benefaction to the Family than the Sewing Machine."

EVERY FAMILY SHOULD HAVE ONE.

Circulars free.

WM. M. DOTY,

19 Beekman street, New York,
E. P. DOTY, Janesville, Wis.

au1t

THE CHAMPION.

HICKOK'S

PATENT PORTABLE KEYSTONE

CIDER AND WINE MILL.

10,000 in Use and Approved.

THIS admirable machine is now ready for the fruit harvest of 1864. It is, if possible, made better than ever before, and well worthy the attention of all farmers wanting such machines.

It has no superior in the market, and is the only mill that will properly grind grapes. For sale by all respectable dealers.

On account of the very heavy excise tax on spirits, there will be a large demand for good cider, (which is, by the way, the most healthy beverage there is, especially for those afflicted with liver complaints,) and every one having apples will make them up into good cider, if they would study their interests. I intend having good receipts for making cider printed and distributed among dealers, for the use of those purchasing mills.

If your merchant does not keep them, tell him to send for one for you, or write to the manufacturer yourself. Address the manufacturer,

W. O. HICKOK,

Eagle Works, Harrisburgh, Pa.

au8t



THE CELEBRATED CRAIG MICROSCOPE.—Combining Instruction with Amusement, is mailed, prepaid, for \$2.50; or with 6 beautiful Mounted Objects for \$3.25; with 24 Objects, \$5.50, by

HENRY CRAIG,

180 Centre street, New York.

Also, he will mail prepaid, the Novelty Magnifying Glass, for examining Living Insects, Seeds, Flowers, &c., for \$1.50; or with 12 beautiful Mounted Objects for \$3.

Mounted Objects for \$3.

je69t

HUTCHINSON'S Family Wine and Cider Mill,



With Press Combined, Large and Small Size, for Hand, Horse or other Power. Is strong and reliable, compact, staple and neat of construction, durable, economical and cheap. Grinds all kinds of fruit, fine, fast and easy, and Presses dry.

Some VALUABLE IMPROVEMENTS have been added to this Mill since last season, and we now feel confident that it is just what the people want.

For full particulars, Descriptive Pamphlet, or Mills, address the manufacturers,

au2t Messrs. HUTCHINSON & BROTHER, Auburn, N. Y.

CATTLE,

HORSES, SHEEP AND SWINE.

FROM MY HERDS AND STOCK OF

SHORT HORNS,

DEVONS AND AYRSHIRES,

THOROUGH-BRED & TROTTING HORSES.

SOUTH DOWN & SHROPSHIRE SHEEP,

AND

Essex Swine,

Carefully selected and mostly from recent importations, I will sell a few choice animals. For particulars address

dec63comt]

A. B. CONGER,

Waldberg, near Haverstraw, N. Y.

AMMONIATED PACIFIC GUANO.

A REAL GUANO, containing from 70 to 80 per cent. of phosphate of lime, to which has been added by a chemical process a large per centage of actual ammonia, so fixed that it can not evaporate, making it equal, if not superior, to any other fertilizer.

Pamphlets with copies of analyses by Drs. Jackson, Massachusetts State Assayer, and Liebig, of Baltimore, and testimonials from scientific agriculturists showing its value, can be obtained from

J. O. BAKER & CO., Selling Agents,

mh6t

87 Wall street, New York.

STRAWBERRIES.—Now is the time to plant for a spring crop. *All the new sorts are now ready for delivery.*

Priced Descriptive Catalogues of Strawberry Plants and all other Fruit and Ornamental Trees, Plants and Seeds for farms, gardens and nurseries, will be sent gratis to any address. Plants carefully packed and prepaid by rail for any distance, and safe arrival guaranteed. Also, explicit directions for the cultivation of the Cranberry in upland gardens and fields, with price of plants. The yield last season in my method of cultivation was over 400 bushels per acre. The time for planting is October and November. Carriage of all packages paid to Boston and New York.

B. M. WATSON,

au2t

Old Colony Nurseries, Plymouth, Mass.

HOMES FOR ALL.—Large and thriving settlement of Ellwood, 35 miles from Philadelphia by railroad. Good soil, good water, fine crops—best fruit section in the Union. Farm lands \$20 per acre, one-quarter cash, balance on bond and mortgage. Good society, churches, schools, mills, &c. To visit the lands, leave Vine street wharf, Philadelphia, 7 A. M., 9 A. M., 2 P. M., 4 P. M.

For full information and paper, apply to

R. F. DANFORTH,

Ellwood Atlantic Co., New Jersey.

au3t

FARM FOR SALE.

A GOOD FARM of 110 acres, near the village of Van Etten, in Chemung county, N. Y., 14 miles from Havana. It is good land, but as I can not attend to it myself, I will sell it for \$25 per acre. Only one-third of the purchase money need be paid down. The remainder can be any length of time that is desired.

JOSEPH HARRIS, Rochester, N. Y.

TOLEDO NURSERIES.

GEORGE BAKER respectfully invites the attention of Nurserymen and Dealers to his large and unusually fine, stocky and well-branched

Fruit and Ornamental Trees, Shrubs, Roses, Grape Vines, &c.,
consisting in part of

- 200,000 STANDARD APPLE TREES—3 and 4 years old, very fine.
- 10,000 DWARF APPLE TREES—3 and 4 years old, very fine.
- 10,000 STANDARD PEAR TREES—2 and 3 years old, very fine.
- 30,000 DWARF PEAR TREES—2 and 3 years old, very fine.
- GRAPE VINES—Catwba, Clinton, Delaware and Concord.
- CURRANTS—Cherry, Red and White Dutch.
- GOOSEBERRIES—Houghton's seedling.
- EVERGREENS—A large and fine Stock of NORWAY SPRUCE, 3 to 6 feet;

SCOTCH AND AUSTRIAN PINE, 3 to 3 feet.

Our assortment is complete, which enables us to fill dealers' orders.

Wholesale Price List sent on receipt of stamp.

a3t

GEO. BAKER, Toledo, Ohio.

The London Club Coffee.

Prepared from the Best Old Java.

TRIED and recommended by the Editor of THE INDEPENDENT,
THE HOME JOURNAL,
THE EVANGELIST,
THE METHODIST.

Commended also by THE CHRISTIAN ADVOCATE, by THE BAPTIST EXAMINER, by most of the leading Editors, and by the most respectable PHYSICIANS. Nearly all prominent Journals and Professional men are using and commending

THE LONDON CLUB COFFEE.

"We have ourselves used this Coffee," says the Editor of THE INDEPENDENT, "and have no hesitation in commending it as an agreeable, healthful, and every way reliable article."

This Standard Coffee is prepared FROM THE BEST OLD JAVA, and has no connection with any of the adulterations drifting about the market. It is easily distinguished from all other Coffees by its remarkable fragrance, strength and flavor.

[From Dr. Van Kleeck.]

GENTLEMEN: I have been using your Coffee in my family, and consider it superior to any I have met with. I find it to contain only the healthiest ingredients, together with a very unusual proportion of PURE JAVA COFFEE. Having recommended it extensively in my practice, I have heard but one opinion in its favor as a nutritious and healthy beverage, and well adapted to nervous temperaments. JAS. B. VAN KLEECK, M. D.,
February 15, 1864. No. 100 Franklin-st. N. Y.

This Coffee is put up for the trade in cases of 36 lb, 60 lb, and 100 lb.

The price of the Club Coffee to the consumer ranges from 24 to 35 cents.

To the Trade a Liberal Discount.
Terms—Net Cash.

CHAS. R. LYON, Sole Agent,
No. 48 Courtlandt street, N. Y.

ly6t

Schenectady Agricultural Works.

G. WESTINGHOUSE & CO.

PROPRIETORS AND MANUFACTURERS OF

Improved Lever and Endless Chain Horse Powers,

Combined Threshers and Cleaners,

Threshers and Separators,

Clover Machines,

Circulars and Cross-cut Wood Sawing Machines,

Dog Powers for Churning, &c., &c.

Send for a Circular containing description and prices of the above-named machines.

Particular attention is invited to our new

Thresher and Cleaner

with RIDGE SEPARATOR. This machine was introduced last season with great success, and we believe is not equalled by any in use. We would invite notice to our

Improved Wood Sawing Machines,

both Circular and Cross-cut, which are complete in every respect.

Address all communications to

G. WESTINGHOUSE & CO.,

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SCHENECTADY, N. Y.

BAUGH'S

RAW BONE

SUPERPHOSPHATE OF LIME.

BAUGH & SONS,

SOLE MANUFACTURERS,

Store No. 20 South Delaware Avenue,

PHILADELPHIA.

THIS article has for many years enjoyed a high reputation as a manure of great efficiency and of unequalled permanence, and we scarcely deem it important, in our semi-annual advertisement, to say more than merely call the attention of buyers to it. But we will also state to farmers and dealers in fertilizers that it has been our constant aim to render our Raw Bone Phosphate more and more worthy of the full confidence of farmers, by the use of every facility at command, and the aid of scientific skill, in essentially improving its qualities, and we have never allowed this purpose to be interfered with by the great and steady advance in the cost of all matters pertaining to our business, throughout the past two years.

The RAW BONE PHOSPHATE may be had of any regular dealer in fertilizers (to whom we advise farmers to apply), or of the manufacturers and proprietors.

BAUGH & SONS,

No. 20, South Delaware Avenue,

PHILADELPHIA.

ly8t

AGENTS WANTED
SALARY \$50. PER MONTH
OR COMMISSION ON SALES
FOR CIRCULARS AND SPECIMENS ADDRESS
L. L. TODD & Co.
68 WILLIAM ST. N. Y.

NEW ILLUSTRATED CATALOGUE.

ROCHESTER CENTRAL NURSERIES.

SEND FOR A CATALOGUE

AND

SPECIAL TERMS OF SALE,

AND

ORDER YOUR TREES DIRECT.

Address

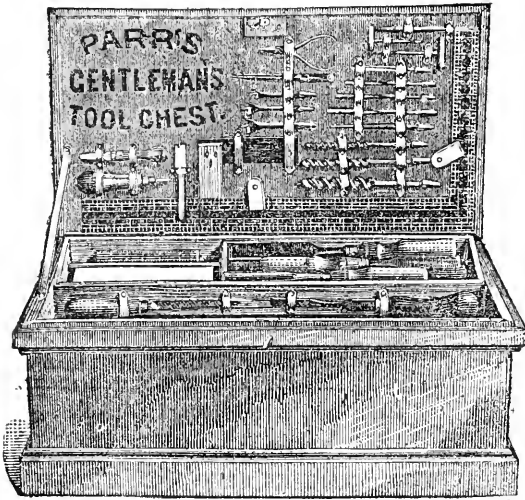
C. W. SEELYE,

aptf

Rochester Central Nurseries, Rochester, N. Y.

\$75 A MONTH—Agents wanted to sell Sewing Machines.

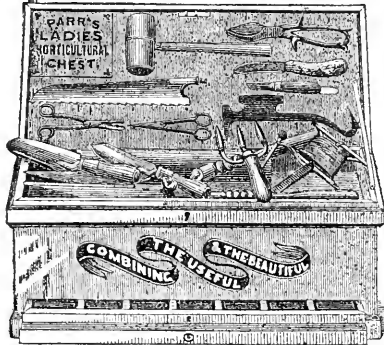
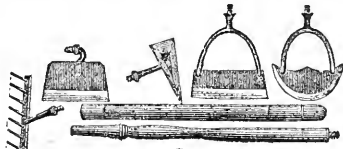
We will give a commission on all machines sold, or employ agents who will work for the above wages and all expenses paid. Address, D. B. HERRINGTON & Co.,
my4c* Detroit, Mich.



PARR'S TOOL CHESTS.

Fitted with complete sets of tools, sharpened and set ready for use, and packed in cases for shipping. Prices from \$2 up, and containing from

Eight to One Hundred and Twenty-Eight different articles, according to size, and adapted to the use of **Boys, Youths, Amateurs and Farmers.**



PARR'S HORTICULTURAL CHESTS,

CONTAINING

COMPLETE SETTS OF GARDEN TOOLS.

Every one having a garden will find these Chests very useful.

TURNING LATHS FOR AMATEURS.

Also, smaller sizes of

FOOT LATHS FOR BOYS,

With Tools to correspond.

To be had of all respectable Hardware Dealers, or of the Manufacturer.

Send for ILLUSTRATED CIRCULAR to the Manufacturer.

GEORGE PARR, Buffalo, N. Y.

JENNING'S GREAT BOOKS

FOR FARMERS AND STOCK-RAISERS.

SHEEP, SWINE AND POULTRY :

EMBRACING

The History and Varieties of each; the Best Modes of Breeding; their Feeding and Management; together with the Diseases to which they are respectively subject, and the appropriate Remedies for each.

By **ROBERT JENNINGS, V. S.,**

Professor of Pathology and Operative Surgery in the Veterinary College of Philadelphia; Professor of Veterinary Medicine in the late Agricultural College of Ohio; Secretary of the American Veterinary Association of Philadelphia; Author of "The Horse and his Diseases," "Cattle and their Diseases," etc., etc.

This is the third of Dr. JENNING'S Great Series for farmers and stock-raisers, and like its predecessors, will be found written in a pre-eminently practical and suggestive style, and while issued in a cheap and convenient form for popular use, it yet grasps the entire subject with all its necessary details. No one who has obtained the previous volumes will fail to purchase this, and taken as a whole, this series of books will stand out for years to come, as beacon lights for the guidance of that intelligent and largely increasing class, who wish to avail themselves of all the modern improvements in the rearing, breeding and general treatment of our domestic animals. With numerous illustrations. 12mo., cloth. Price, \$1.50.

CATTLE AND THEIR DISEASES—Embracing their History and Breeds, Crossing and Breeding, and Feeding and management; with the Diseases to which they are subject, and the Remedies best adapted to their cure. To which are added a List of the Medicines used in treating Cattle, and the Doses of the various remedies requisite. By ROBERT JENNINGS, V. S. With numerous illustrations. 12mo., cloth. Price \$1.50.

THE HORSE AND HIS DISEASES—Embracing his History and Varieties, Breeding, and Management and Vices; with the Diseases to which he is subject, and the Remedies best adapted to their Cure. By ROBERT JENNINGS, V. S. To which are added Rarey's Method of Taming Horses, and the Law of Warranty, as applicable to the purchase and sale of the animal. Illustrated by nearly 100 engravings. 12mo., cloth. Price \$1.50. Agents and canvassers will find these very desirable works. Liberal terms made with the trade.

Either one or all of the above books will be sent to any address, post paid, on receipt of price, \$1.50 each. Send your orders to

JOHN E. POTTER, Publisher,

617 SANSON ST., PHILADELPHIA.

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CAYUGA CHIEF

COMBINED MOWER & REAPER,

AND

CAYUGA CHIEF, JR., MOWER.

Manufactured at Auburn, N. Y., by

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BURTIS & BEARDSLEY.

TO CLEAR THE HOUSE OF FLIES,

USE DUTCHER'S CELEBRATED

LIGHTNING FLY-KILLER,

a neat, cheap article, easy to use. Every sheet will kill a quart.

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SOLD EVERYWHERE.

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SWEET POTATO PLANTS,

[Price \$2.25 per thousand.]

OF THE LEBANON YELLOW OR NANSEMOND variety. These plants will be packed in boxes of five and ten thousand each, so as to travel with safety ten days. Grown by my6t F. A. SCHWILL & BRO., Cincinnati, Ohio.

White or Hedge Willow for Sale.

CUTTINGS of this superior live fence plant, of suitable length, at \$1 per 100 or \$5 per 1000. Warranted true SALIX ALBA. D. S. HEFFRON, Utica, N. Y.

CIDER PRESS SCREWS.

FIVE FEET LONG, four inches diameter. These powerful Screws bring out a third more juice than portable presses. Made by L. M. ARNOLD, Poughkeepsie, (N. Y.) Foundry.

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Poughkeepsie, (N. Y.) Foundry.

REMINGTONS & CO.,

Ilion, Herkimer County, New York,

MANUFACTURERS OF

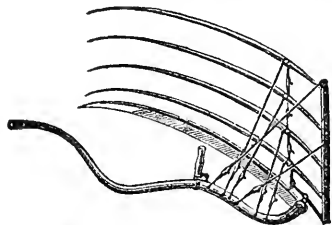
STEEL PLOWS,

STEEL CULTIVATOR TEETH,

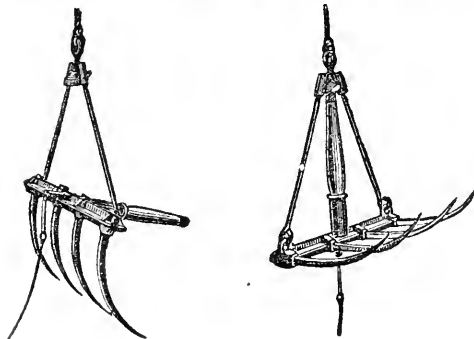
STEEL SHOVEL PLOW BLADES,

FLANDER'S

Patent Adjustable Grain Cradle,



**MYER'S PATENT
HORSE HAY ELEVATOR,**



**PERRY'S
PATENT HORSE POWER,**

AND

Agricultural Implements Generally.

The Cradle Elevator and Horse Plow

Have been lately added to our list, but have been selected from the great number and style of Implements now before the public as the best in use, and we doubt not a trial will fully justify our choice.

We have changed the iron head of the Elevator for wood, which has proved better and lighter than iron. The Horse Power has proved itself far superior to any in use. Address
my **REMINGTONS & CO., Ilion, N. Y.**

TO FARMERS!

BRADLEY'S TOBACCO FERTILIZER, AND BRADLEY'S X L Superphosphate of Lime, are for sale at wholesale and retail by the Manufacturer. **WM. L. BRADLEY:**
Sales Office 24 Broad street, Boston.

Pamphlets containing testimonials in favor of his Tobacco Fertilizer, Bradley's X L Manual on the Culture and Curing of Tobacco, with Illustrations, can be had by addressing the undersigned. **WM. L. BRADLEY.**
Highest Cash prices paid for Bones. my

TILE MACHINE.

THE BEST MACHINE IN AMERICA. Send for a Circular containing description. **A. LA TOURETTE,**
Waterloo, N. Y.

BULLARD'S IMPROVED



**PATENT HAY TEDDER,
Or Machine for Spreading and Turning Hay.**

THE subscriber having purchased the exclusive right for manufacturing and selling (for the State of New York)

Bullard's Improved Hay Tedder,

now proposes to furnish the Farmers to the extent of his ability, which must necessarily be limited the coming year, owing to the difficulty of obtaining good and competent mechanics.

Those who desire to avail themselves of one of these great labor-saving machines will please send in their orders early to be recorded in turn. "First come, first served." Address
SILAS C. HERRING, New York.

N. B.—Pamphlets and Circulars will be sent by mail to those who request them.
D. R. BARTON, Rochester, N. Y., Agent. ap'64-17

BUY THE BEST



**The Railway Horse-Power Awarded
FIRST PREMIUM**

At the New York State Fairs of 1860 and 1862

AND

Ohio State Fair, 1863,

As it also has at every State and County Fair at which the Proprietors have exhibited it in competition with others, running with low elevation and slow travel of team.

COMBINED THRESHERS AND CLEANERS,

Threshers, Separators, Wood Saws, &c.

All of the best in market. The

THRESHER AND CLEANER

Also received the **FIRST PREMIUM** at the Ohio State Fair, 1863, runs easy, separates the grain clean from the straw, cleans quite equal to the best of Fanning Mills, leaving the grain fit for mill or market.

For Price and Description send for Circulars, and satisfy yourself before purchasing. Address
R. & M. HARDER,
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THE
GENESEE FARMER
 PRACTICAL AND SCIENTIFIC FARMERS OWN PAPER

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No. 9.

WALKS AND TALKS ON THE FARM.—NO. 9.

CANADA THISTLES are a great pest. This has been a splendid summer to destroy them among all hoed crops and on summer fallows. They can be killed by thorough cultivation. They are tenacious of life, but they cannot live if the leaves are constantly cut off as soon as they appear. In corn, potatoes and other crops which admit the use of the horse-hoe this is easily accomplished. If they are not destroyed in one season plant the land to corn two years in succession. Keep the horse-hoe constantly going till the corn tassels out, and if any thistles appear after this go over the land with hand hoes and cut off every thistle. Do this as often as necessary and I think you will finish them.

Many people give corn good cultivation early in the season, but neglect to go through the field in August to hoe and pull up the weeds. The result is that the weeds not only rob the soil of moisture at a time when the corn needs it, but they go to seed and spring up thicker than ever next year.

The editor of the *Germantown Telegraph* says, apparently in all seriousness, that the only way to destroy Canada thistles is to cut them off in the summer and put a table-spoonful of salt on each stalk! No doubt this would do it, and it might be practiced on a small scale in a city or suburban garden, but to recommend it to farmers is simply absurd. There is a ten-acre field in this neighborhood that I should like to see the editor experiment on. It is one mass of thistles. There must be at least one to every square inch, and consequently there are 6,272,640 thistles on an acre. A table-spoonful of salt, say one ounce, to each thistle, would be 267,040 lbs., or over 600 barrels, which at \$3.00 per barrel would be \$1,800 per acre for the salt alone, to say nothing of the time and labor required to apply it.

I intended to plow my summer fallow three times, but have abandoned the idea. The sod is not sufficiently rotted to cross-plow. The most experienced farmers have advised me not to touch it, "unless," said one, "you want a fallow that you are ashamed

of." He says he had just such a case some years ago and cross-plowed it in August, and a rougher job he never saw. Keep the cultivator going and roll and harrow it well and it will be better he says than cross plowing. I am not certain which will be best and think I shall plow a few acres and leave the rest as he advises. I do not object to a rough fallow for wheat on the surface, provided the land is well pulverized underneath. This making the surface very fine while the bottom is hard and cloddy does not seem to me a desirable preparation for wheat. My father used to say he liked a rough surface for wheat, and an old English farmer in Riga told me the same thing a few days since.

The caterpillars are eating up the turnips. A farmer told me yesterday that he sowed a quarter of an acre and they have eaten up every plant. They have devoured four rows of mine along the fence, but as yet have not, apparently, touched the others. They make a clear sweep as far as they go.

We have had another glorious rain. It will reach the roots of the corn and potatoes where the soil is well cultivated, but on hard grassy land it has not penetrated more than two inches deep. I cultivated my corn five times each way and went over it with the hand hoes twice. The soil is very mellow, but no cleaner than I want it. I intend to sow it to barley next spring and seed it down, and was determined to get it clean if possible. I want to put my land into grass, but it is useless to expect a good permanent meadow unless the land is thoroughly prepared before seeding.

Those who have threshed say the wheat turns out worse than they expected. The midge has undoubtedly done much damage to the white wheat. I think late, wet springs, and dry, hot summers and the midge, will in time, drive us into underdraining and good culture. We cannot go on as we have. Poor farming is certainly a poor business. The farmer who raises no more than enough to support his family gets no advantage from the present high prices,

for everything that he has to buy is certainly as high as anything he has to sell. The farmer whose land is in high cultivation and raises good crops is in a position to make money, for we know that it costs no more to sow an acre of good land that will produce 30 bushels of wheat, than an acre that will only produce 15. If the expenses are equal to 10 bushels, the profits on the poor acre are five, while on the other they would be twenty bushels, or four times as large.

How much grain should you feed horses at hard work? I believe in liberal feeding, and my men are in this respect perfectly willing to carry out my views! The stomach of a horse will hold about three gallons, while the ox has four stomachs, the first of which is larger than that of a horse. Hence horses require a far less bulky diet than oxen, and should be fed oftener. If we give an innutritious food the horse is compelled to eat so much that the stomach is overloaded and presses against the diaphragm—the muscle of respiration—and interferes with its healthy action. Horses, to work hard, therefore, must have a food that contains considerable nutriment in a given bulk. It costs so much now to keep horses that it is better to feed them liberally and work them hard, than to work less and feed sparingly.

Boussingault says that the "usual allowance each day for a horse at Bechelbronn (France) is, hay 22 lbs., straw 5½ lbs., and oats 7¼ lbs. This is certainly not what would be called high feeding in this country, but he says "with this ration the teams are kept in excellent condition." I think 6 quarts of corn meal and 6 quarts of "spout feed" per day, with good hay ought to be enough for a team, but my men do not think so.

There is considerable fungus growth among the corn this season. What is the cause of it? Is it, like smut in wheat, propagated from spores attached to the seed, and if so would it not be well to "pickle" our seed corn in the same way as we "pickle" our seed wheat? There can be no doubt that smut in wheat is effectually destroyed by pickling the seed in fermented chamber lye and drying it with lime, and if this fungus growth on corn is caused by fungus spores attached to the seed it can be prevented in the same way.

I have just received a letter from Mr. F. P. Root, of Sweden, N. Y., in regard to the Boughton wheat he bought from S. B. Walton, of Fallston, Md. Mr. W. sent 20 bushels of this wheat to the International Wheat Show, held in Rochester Sept. 8—10, but it did not arrive till some days after the close of the exhibition. John Johnson, of Geneva, and F. P.

Root, of Sweden, purchased the wheat for \$3.00 per bushel and sowed it last fall, but of course rather later than was desirable to give it a fair trial. Mr. Root says:

"I promised to report to you the merits of the Maryland Boughton wheat, sown last fall, the seed of which I obtained through your politeness at the International Wheat Show in Rochester. The wheat did not arrive till quite late for seeding time, so it can hardly be said to have had a fair trial. It was sown the 18th of September on a common fallow, without manure, land once plowed, then cultivated and harrowed. The winter was unusually hard on late sown wheat, and this was much injured by heaving, a large portion of the ground being stiff clay soil and not rich. The ten bushels of seed was sown on five acres of land. In the spring it looked very spotted, and also at harvest time, as it ripened very unevenly, and on the thin late spots the berry was shrunk, which considerably lessened the yield. I have just threshed the crop and have measured 130 bushels of nice white wheat. The measures were heaped as taken from the machine and will overrun in weight, I have no doubt, five or six bushels, making 27 bushels per acre, which, under the circumstances, is a good yield, much better than the Mediterranean yields with us this year. Mediterranean has been much injured by the midge, while the Boughton wheat was not, it being too early for the rogues; about a week earlier in heading than any other wheat we have. The straw is very short and stiff. I think it will not fall down on the richest ground. It is a very nice looking bald white wheat, and easy to harvest and thresh, not being more than half the bulk of straw that the Mediterranean has and more wheat. On the whole, I like the wheat and shall sow all I have this fall."

Mr. Root also says that he received from the Agricultural Department at Washington a package of "Tappahannock wheat," which he sowed. *It proves to be the same variety* as the Boughton wheat.

I regret that owing to the State Fair being held at Rochester we shall not have another Wheat Show this year. I am sure that such an exhibition held just before the time of sowing wheat, would prove an incalculable advantage to the farmers of this section. If this Boughton wheat should, on further trial, prove sufficiently hardy for our climate and early enough to escape the midge, it will be worth to the farmers of Western New York millions of dollars.

The Agricultural Department at Washington is doing a good work in distributing new varieties of seeds, but the samples of wheat are too small to afford a fair test. An International Wheat Show, where the entries were not less than two bushels, and where the straw is also exhibited and a written statement of the qualities of the wheat is given, is certainly more likely to lead to the introduction of good varieties. I hope we shall have a Great International Wheat Show at Rochester in 1865; and the sooner the arrangements are perfected the better. We should have wheat from every section of the loyal States—and by that time all the States may be

loyal—as well as from Canada and Europe. Who will take hold of the matter?

I have just been cultivating turnips, or as they call it in England, “scuffing.” Remington’s Horse Hoe, with the mold-boards turned inside, so as to throw the soil from the rows, does the work to perfection. Where I drilled in superphosphate with the seed the turnips are splendid.

I drilled the seed on the flat, but I think it would have been much better to have made ridges two and a half feet apart, as they do in England and Canada. When drilled on the flat, it is impossible to run the cultivator as near the plant as is desirable, as the soil is apt to cover them.

The Canadians are far ahead of us in turnip culture. They have introduced the double mold-board plow, and the English turnip drills, to sow two rows at a time, with light rollers attached—one before the spots to roll down the ridges and one very light one after to cover the seed. A still further improvement would be to have a manure drill attached for sowing superphosphate and other light fertilizers in the drill with the seed. To those who grow turnips extensively these drills are essential. I sowed mine with a couple of hand drills. Two men and two boys to draw the drills sowed four acres in half a day. This is far better than sowing broadcast, but it is much more labor than is necessary if we had the proper kind of drills drawn by a horse. When we understand their cultivation better I believe we shall yet raise turnips quite extensively.

Mr. Burroughs has a nice piece of Skirving’s Swede turnips, and he was showing me, a few days ago, the effect of drawing the soil from the plants and leaving the bulbs bare. The bulbs so treated were nearly half as large again.

The Doctor has the finest acre of Swede turnips I have ever seen in this country. He is a thorough cultivator. The rows are two and a half feet apart and as straight as an arrow. He applied from 300 to 400 lbs. of Bradley’s XL Superphosphate of Lime, and its effect is astonishing to those who have seen it tried for the first time. There can be no question that superphosphate is the best of all manures for turnips. Nothing would so favor the general introduction of turnip culture in this country as the use of superphosphate. It may be questionable whether superphosphate will pay on other crops, but it will certainly pay on turnips.

I am digging a ditch through the woods and the low land south of the road. The level shows that there is fall enough to surface drain. I was in hopes I could get fall enough to underdrain it, but cannot without going through a neighbor’s farm. I offered to pay half the expense of digging a ditch through

his land. He admitted that his land needed such a ditch, but said he was “going to sell and the farm would bring no more after the ditch was cut than it would without it.” Perhaps it would not, but this desire to sell, which so generally prevails, is a great bar to improvement.

There is a mill-dam about two miles from here which did more damage last year to the farms back of it than would buy the concern ten times over. Were it not for this dam I should have abundance of fall on my own farm to underdrain it completely. The dam has been declared a “nuisance” by the Supreme Court, but no directions were given as to how it should be abated, and the owner has adopted the novel plan of abating it by raising the dam and the pond several feet higher.

The last number (August 6th) of the London *Agriculture Gazette* presents its usual tabular statement of the appearance of the crops throughout Great Britain and Ireland. The editor, in commenting on the reports, says: “Most of our pages are this week filled with reports of the current harvest. We cannot congratulate our readers upon the character of it. It was hardly to be expected that so cold a June and so dry a summer should have produced abundant crops—but we did not think, from a recent examination of many of our eastern, western and middle counties, that the returns, at least of the wheat crop, would have been so unfavorable.”

Our own crops are undoubtedly deficient, and it would seem that unless gold should decline, prices must advance even higher than they are.

There is an old neglected dwarf pear orchard on my farm. The trees are mostly Virgalieu, and cracked so badly that the former owner considered them worthless. The orchard was suffered to lie in grass, and the trees soon became stunted and covered with lichens, canker, &c. This spring I plowed it up, proposing to give it good culture, but in the pressure of other matters have neglected it altogether. The grass sprang up between the furrows, and it is, taking it altogether, rather a forlorn specimen of a dwarf pear orchard. If I did not know what pears would do with good care and culture, I should unite with those who cry out against dwarf pears as a humbug.

But this was not what I was going to say. There was three or four rows of trees where the land was not plowed within three or four feet of each side the trees, while the others were plowed as close as we could do it with the oxen. The trees in the rows left in grass are yellow and sickly, the fruit small and cracked, and every way inferior to the other trees. It is very evident that if a mere plowing early in spring will make so much difference, good

culture must be of the greatest benefit; and yet there are those who contend that orchards should never be plowed! I presume it is possible to make an orchard in grass so rich by repeated top-dressings as to render plowing and cultivating the surface unnecessary; but under ordinary treatment all orchards are better for having the surface cultivated. For peaches and pears this is absolutely essential to success, and apple orchards are undoubtedly greatly benefited by an occasional plowing. J. J. Thomas, in the *Country Gentleman* of this week, alludes to an apple orchard part of which was in grass and the other kept mellow by cultivation. The apples growing in the grass were much affected by the drouth, and most of the fruit fell from the trees before fully ripe, and before they had attained one-quarter the usual size. On weighing a number of the apples, for the purpose of ascertaining accurately the difference between cultivated and grass ground, the fruit on the latter weighed on the average $1\frac{1}{4}$ to $1\frac{1}{2}$ ounces each, while those cultivated weighed from $2\frac{1}{2}$ to $3\frac{1}{2}$ ounces.

Mr. Thomas remarks that there may be fertile sections in the West where apples can be grown in grass, and cultivators must modify their treatment according to circumstances. As a rule to go by, he says that if the annual shoots are not a foot long, the owner may be sure that the trees require higher culture; if, on the other hand, they exceed a foot and a half to two feet in a bearing orchard, nothing need be done to increase its vigor.

I am half inclined to sow an acre or two of rye, as soon as I have finished sowing wheat, to feed to the cows next spring. I expect to be very short of grass, and shall have to soil my cows to some extent next summer. I suppose rye is the earliest feed you can get, clover coming next. I regret that I have not a piece of young clover near the barn-yard that I could put on a good top-dressing of manure this fall. Nothing pays better than this. If I had such a piece I should not think of sowing rye, but as I have not, I think I shall sow a little and manure that pretty liberally on the surface. It will be ready to cut early enough to give ample time to sow the land with beets, mangold wurzels and Swede turnips.

P. B. Mingle & Co., of Philadelphia, sent me to-day a few pounds of Mediterranean wheat, imported by Thomas Richardson & Co., of New York. It is a very heavy, handsome wheat, and if it does not cost too much I will sow a few bushels. Mr. Richardson is a large exporter of wheat to Europe, and is interested in improving the quality of wheat grown in the United States. He thinks it is time we should renew our Mediterranean wheat by im-

porting fresh seed. Mr. Richardson is a gentleman of the highest respectability, and there can be no doubt that he has imported this wheat with the sole object of benefiting the farmers of the country. He deserves the thanks of all wheat-growers.

Mr. Chas. S. Burroughs, of Lachute, C. E., writes that he has sent me a couple of samples of winter wheat, and one of spring wheat. They were obtained from the Russian Commissioner to the International Exhibition in 1862. I feel under obligations to Mr. Burroughs for his politeness, and will give the samples a fair trial. They are described as

No. 612—Gherka winter wheat, exhibited by O. Tritter, of Odessa. Obtained a prize.

No. 670—Sandomerka, or Polish wheat, exhibited by F. Sando, of Odessa.

No. 67—Egyptian spring wheat from Eastern Siberia, exhibited by S. Bogolabski, of Irkootsk.

Gherka is, by the map, Lat. 48 N., Long. 26 E.; Sandomerka, Lat. 52.3 N., Long. 21 E.; Eastern Siberia, Lat. 52.30 N., Long. 106 E.

One would think that they would be sufficiently hardy to withstand our climate, but Mr. Burroughs says that the Gherka wheat was entirely killed with him last winter in Lower Canada. The sample he sends, I conclude, is a part of the original one obtained from the Russian Commissioner.

Robert L. Smith, of Stockport, N. Y., writes me that he has invented a small self-regulating wind-mill, made with a single upright post, the base of which is fastened to the roof of any building where the mill is needed. From the crank of this mill-shaft a wire runs down into the building connecting with an accumulating machine, which it turns and raises a weight whenever the wind blows, and the power of this weight can be used to run the machine when the wind does not blow. He thinks it will be useful for churning, &c.

I. W. Briggs writes me, that wishing to ascertain how small a quantity of potato it would do to plant for seed in an emergency, he planted 98 hills, 4 pieces in a hill, with 8 ounces of small pieces of Mexican potatoes cut from the seed ends of the potatoes. Many of the pieces were not as large as a grain of corn. The potatoes are now looking well, and he thinks he will get 2 or 3 bushels from this half pound of seed.

Mr. Loomis told me to-day that since I saw him last he has become convinced that it was his own man that sowed the strip of wheat in his field with a different variety, and he wishes to retract the charge he brought against our Canadian friend of putting two kinds of wheat in the bag he exhibited at the Wheat Show.

FARM WORK FOR SEPTEMBER.

SOWING WHEAT.—The preparation of ground for wheat is an important labor for this month. The ground should be made mellow, that the moisture may be preserved and the seed vegetate freely. It should be clear from weeds and their seeds, that the crop may not be choked, the product rendered foul or impure, nor the subsequent grass crop diminished in value. Experience only will teach the farmer the proper degree of fertility; there are very few farms, however, where the addition of fine manure will not be advantageous. An excellent mode of managing is the top-dressing given in the directions for last month. This top-dressing also assists the germination of grass seed, thus affording the advantages of thick seeding and insuring a vigorous growth of the plants. Timothy seed sown with the wheat, or immediately after, usually produces too strong a growth, and lessens the wheat crop, as well as interferes with the harvesting; it is best, therefore, to sow it about a fortnight afterwards, and the clover as early as possible the following spring. This top-dressing also protects the surface of heavy soils, and lessens the tendency to freeze out. Sowing wheat early produces stronger plants and a better crop, but does not cause earlier ripening of the grain. The drill seeding, if properly performed, gives the best crop, often from three to five bushels more per acre—but much drill seeding is improperly performed, the seeds being deposited too deep—an inch and a half on heavy soils, and two inches on light ones, are better than any greater depth; if the soil is moist enough, a less depth is better. Any farmer may satisfy himself on this point, and gain valuable practical information, by a few measured experiments. Some, who have set their drills much too deep, have had lighter crops than with ordinary broadcast sowing, and have hastily denounced all machines of the kind.

Seed wheat that is infected with smut may be purified by washing in brine, and then sprinkling and stirring in powdered slaked lime.

SEED CORN.—Improved varieties always tend to run backwards; the farmer should therefore constantly select the best ears for seed. This should be a regular yearly business, and if faithfully carried out will give an increase of several bushels per acre, in the long run.

SWINE.—The falling apples in orchards may be now fed to swine, and in connection with richer and drier food will cause them to fatten rapidly. Winter apple trees are often allowed to over-bear, and the removal of a portion of the crop for feeding these animals will improve the remainder. No tree should ever bear heavy enough to need propping. The yards and apartments in which swine are kept should be scrupulously clean, and rendered comfortable by

dry litter. Experiments have shown that they fatten faster under these circumstances. Great pains should be taken to feed them with clock-work regularity, and not to give so much at a time that some will be left, and a distaste for food produced; neither should they ever be allowed to squeal off their flesh by waiting impatiently.

BUTTER.—This is usually the best month for the manufacture of butter—the great leading requisites for success in which, are first and most important, good, sweet, rich, abundant pasture; secondly, good cows; thirdly, perfect cleanliness in the dairy house, in all the vessels used in it, and in the air which surrounds it; fourthly, general and skillful management throughout. Under the latter head may be mentioned, shallow pans or shallow milk in the pans, proper temperature of the cream, and working out all the buttermilk.

TOP-DRESSING MEADOWS.—The best mode of manuring meadows is thoroughly enriching the soil by manure, applied to crops which precede laying down. But scarcely inferior, and perhaps equal to this treatment, on clayey soils, is autumn top-dressing. The manure for this purpose should be broken fine, and very evenly spread. Harrowing, some weeks after the application of the manure, will often be useful where the grass is short. The manure, thus applied, causes a strong autumn growth, enriches the surface soil by the washing in of autumn rains, and both the manure and the increase of grass protect the roots during winter, and give an early growth in spring.

GENERAL HINTS.—There are a large number of farm operations which should not be forgotten during the present month. The erection of suitable buildings for sheltering domestic animals the coming winter is a very important one; drain bogs when dry enough; clean meadows of all scattered stones and rubbish; see that root crops are kept clear of weeds; examine and repair all fences; soil and feed cows if the pastures are short; grub up bushes and briars; cut up straggling thistles in pastures; pull up scattered mulleins by roadsides; harvest buck-

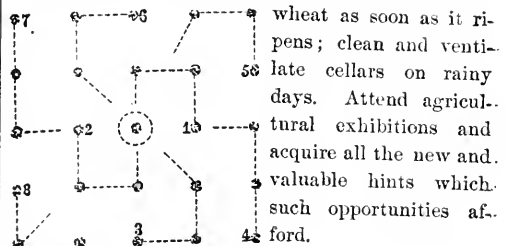


Fig. 1.—Mode of Cutting Corn by hand, 25 hills to each shock. Much labor is saved by taking no unnecessary steps; this is the reason that some men accomplish more than others with equal

CUTTING UP CORN.

Much labor is saved by taking no unnecessary steps; this is the reason that some men accomplish more than others with equal

exertion. The remark applies particularly to cutting up corn—where a regular system will save many steps. If the corn is of a large variety, or in large hills, twenty-five hills will make one shock, (fig. 1.) and the inexperienced workman may take three

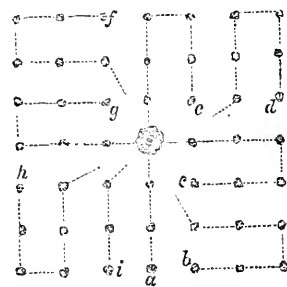


Fig. 2.—Mode of Cutting up Corn, forming a shock of 49 hills.

hills at a time, each successive three being designated by figures in the accompanying cut, the dotted lines connecting the three. Smaller varieties of corn, in smaller hills, will enable the expert laborer to take six hills at a time, and to form a large shock of forty-nine hills, (fig. 2.) commencing at a, he takes the first three as a beginning; next at b, he takes six; at c, the next six, and so on, the dotted lines showing his footsteps. A larger armful may be taken by placing the arm above and before the hill, instead of behind it.

The common mode in cutting is to place the shock around a central uncut hill, which occasions some inconvenience in husking, to obviate which the corn horse is used. It consists of a pole about twelve



Fig. 3.—Corn Horse, used in constructing shocks.

feet in length, and nearly as large as a common wagon tongue. One mode of constructing it, (shown in fig. 3.) is by placing the legs at the end of the pole, the other end resting on the ground. Two or three feet back of the legs a horizontal hole is bored, admitting loosely a rod four or five feet long. The corn when cut is placed in the four corners made by



Fig. 4.

the rod and pole, and when the shock is finished the rod is pulled out and the pole drawn backward. In fig. 4 the same end is accomplished, only the pole is drawn forward instead of backward.

STONE WALLS.—At the present season, between harvesting and the securing of autumn crops, it is a good time to draw stone and construct stone walls or fences. The durability of a wall depends greatly on the manner in which it is built. Two new walls of the same height and general appearance, present a perfect contrast after the lapse of twenty or thirty years. There are a few now standing after the lapse of over half a century, as straight and perfect as the year when they were built; but there are a

hundred times as many not nearly so old, that are twisted, distorted, tumbling or prostrate, many of them a mere confused line of stone, variously intermingled with elder, nettle and blackberry bushes. This contrast is owing solely to the mode in which

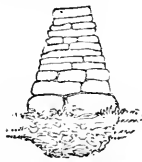


Fig. 5.—Cross Section of a well built wall.



Fig. 6.—Cross Section of a badly built wall.

the walls were built. The best mode should therefore be well understood. The most important of all requisites is to build the wall in a trench, dug to a depth corresponding to the depth to which the soil freezes. This trench should then be compactly filled with small rounded stone, broken stone, or with coarse clean gravel, according to circumstances, or supplies at hand. If the soil is compact, this trench



Fig. 7.—Condition of a badly built wall after twenty years.

should have a drainage, or outlet. On these small stone the wall is erected. It often happens that an under-drain, three feet deep, filled to the surface with small stone, may serve as a good foundation for the wall; but unless the soil is tenacious, and especially if inclining to the nature of quicksand, it will be liable to work into the ditch at the sides and towards the top, unless well shielded with a lining of flat stones or of gravel. A wall with such a base as this will remain unmoved by frost for ages: while one placed merely on the surface will rise and fall at every freezing and thawing, the stones will become gradually displaced, and before many years will totter and fall.

The best stone are such as are flat or in square blocks. But a substantial wall may be made of round or cobble stones, if they are solidly laid and crossed ties of wood are employed. The lower series of these ties should be near the bottom, or about a foot high; the second, two-thirds of the way to the top; or, if the stone are nearly round, three or four may be placed at different heights. They are all sawed of distinct lengths for this purpose, and should be split so as to be about half an inch thick, and two or three inches wide. If made of durable wood they will last an age, as they are less exposed than fence rails, being covered by the stone and nearly always dry.

BREAKING JOINTS.—This is of great importance in laying up the wall. If well attended to, it makes

it inconceivably stronger. The accompanying figures, (8 and 9,) clearly explain themselves, and show the difference between breaking the joints and the improper forming of vertical seams, presenting



Fig. 8.—Side view of a wall well laid, or with joints broken. many chances for the wall to fall apart. After the wall is built, the earth should be raised in a moderate slope, about half a foot against the sides, to throw off water, and as an additional protection to the foundation against frost.

Where stone are good and abundant, the wall may be built four and a half feet high, and will serve as



Fig. 9.—Side view of a wall badly laid, or with joints not broken. a complete fence. In other cases, a half wall will be found most convenient, being built two and a half to three feet high, and finished by first laying a rail on the top, then crossing stakes, and finally a rider. Sometimes posts are set in the wall for receiving these two top rails; they present a neater appearance, but are apt to crowd the stones apart



Fig. 10.—End view of half wall, on trench.



Fig. 11.—End view of wall with wooden cross-ties.

and throw the wall down. A good stone wall is the most perfect of all farm fences, and well built of large block stones will last for ages without repair. The cost depends much upon circumstances. Half wall has sometimes been built for fifty cents per rod, but this is too cheap, and the work can not be well done, nor a trench made. Digging the trench, filling it with stone, and building a good half wall will cost about one dollar per rod, and sometimes more. A good wall, four and a half feet high, will usually cost two to three dollars; while others, built of large block stone, handsomely faced on both sides, and substantial enough to last a thousand years, have cost from five to six dollars per rod.—*Tucker's Annual Register.*

It will not do to hoe a great field for a little crop, or to mow twenty acres for five loads of hay. Enrich the land and it will pay you for it.

HUSBANDING AND APPLYING MANURES.

THIS subject was discussed at the meetings held in the evening during the last State Fair at Utica, and was continued at the Winter Meeting of the Society. The Hon. A. B. Conger, who presided at the meetings, has kindly furnished us with a summary of the discussions. Mr. C. is entitled to much credit for the interest he takes in these discussions, and for his efforts to render them useful. When a subject has been discussed, he presents a summary of the principal points brought out, and if it is approved they are published as the opinion of the meeting. The object is to prevent these meetings from degenerating into mere idle talk. Mr. Conger, who has for many years presided at these meetings, desires that when the farmers of New York meet together to discuss an important question connected with practical agriculture they should decide *something*—that the matter should not be left as vague and uncertain as it was before. The object is certainly a most desirable one, and if successfully accomplished can not fail to add greatly to our store of *definite* agricultural knowledge.

The following is the summary of the discussions on husbanding manures as prepared by Mr. Conger. It is worthy of careful study:

1. Where sufficient has been reserved for arable lands, barn yard manure may be spread upon pastures and meadows under the following restrictions:

a. If spread early in the spring on pastures designed for *immediate* use, it should not be of the droppings of that species of domestic animals intended to be placed in the pastures.

b. It should never be spread upon meadows in the spring, as the coarser parts will be caught by the hay-rake, and mixed with the hay, imparting to it a musty smell if not tainting and poisoning it with fungus.

c. It may be evenly spread on meadows at any time after harvest, and lightly harrowed or bushed, especially if the after-math is heavy, so that the grass may not be smothered.

d. The weather should indicate the absence of high winds, the approach of moderate rains, or the presence of copious dews, so that the ammoniacal portion of the manure may not be lost.

e. On rapidly sloping lands a heavier top-dressing should be applied near the summit, unless furrows such as are necessary in irrigation are made, so as to prevent the manure being washed with heavy rains to the bottom.

f. In winter no manure should be spread on either pastures or meadows when hard frozen, even when most of the atmospheric conditions above alluded to are present, *unless* the surface is, or soon will be, covered with snow, and then only on ground either

level or gently rolling, so that in case of a thaw the melting snows may not render the distribution of the manure comparatively useless.

2. Under a system of rotation of crops, as supposed in the question, the husbanding of manures is indispensable to thrift in farming, and is to be regulated according to the supply of litter and the method of feeding adopted.

3. On farms whose principal staple is grain, the amount of straw is not unfrequently in excess of the feeding material reserved, and in such case it is necessary to spread it profusely over the barnyard, that it may be trodden down by cattle and sheep and mixed with their droppings. In such cases it is sufficient that the barnyard should be dished or provided with one or more tanks for the holding of the drainage of the mass; that fermentation should be allowed to proceed until the straw is disintegrated sufficiently either to turn the mass into heaps (into which the liquid contents of the tanks are to be conveyed by pump and troughs,) or drawn out into the fields for spring and fall crops—of which method as generally in all departments of the farm service, the labor that can be applied is the discriminating test.

4. When from the scarcity of straw upon a farm, its high price in neighboring markets, or its being an element of food prepared for stock, it is necessary to economize its use, the system of box or stall feeding is to be resorted to, and the husbanding of manures is determined as the feeding is either of animals to be fattened or reared.

5. In the former case, neat cattle may be placed in boxes not less than eight by ten feet, the bottoms slightly dished with a view to drainage or being filled with muck or other absorbents, and the animals wintered with slight additions of cut straw as litter, so as to prevent the loss of air and other cutaneous affections, (which proceed from the heating of straw if too liberally supplied,) and the whole mass of droppings, &c., left until removed to the fields.

6. In the latter case, that of the rearing of young animals, a like method may be pursued, but if their value will admit of a greater regard being paid to cleanliness, &c., the box should have a slatted floor of oak or other durable strips one and a half inch thick, three inches wide, and one-half inch apart over a paved, clayed or cemented floor, and inclined so as to carry the drainage of the box into gutters leading to a tank, and the manure removed as often at least as once in six weeks, placed under cover of a roof either permanent, or of boards battened, turning on pins and moved by a long lever as in sheds for drying brick, the liquid manure, (if not used separately,) being pumped from the tank and

conveyed by troughs over the mass so as to prevent fire fanging. If used separately the sheds are to be opened to occasional rains for the same purpose.

7. The manure from animals stabled in the ordinary way is to be treated as last above described, and it is desirable that the manure shed should be constructed with access to it from a level below that on which the manure is deposited, so that in winter the manure may be carted out upon lands plowed the fall, the fresh masses placed on top preserving those underlying from being thoroughly frozen.

8. When sheep are alone raised, they should be kept under sheds with small yards connected therewith, and their droppings may be treated either as in the case of fattening or growing animals in the discretion of the owner.

9. Where no portion of the manure is designed for top-dressing pastures, that of horses and neat cattle may be always advantageously placed under the same cover, their different capacities for developing heat operating favorably against overheating.

10. As the value of straw as an article of food if cut up, mixed with feed thoroughly wetted and allowed to stand in mass for a few hours so as to develop heat, or if steamed is at its lowest price worth at least twice as much for food as for the manure resulting from its use as litter, where beds of muck or peat exist on a farm they should be ditched, and afterwards pared, so that by the use of these materials, when dried, the straw may be largely used as an article of food, a greater number of animals kept on the farm, greater masses of manure made, and with a material more valuable than straw as an absorbent and fertilizer, and for the preservation of the droppings of cattle, at a more uniform rate of temperature.

WHY DOES IRON RUST?—Few persons, we think, really understand this question or know the cause. The rusting of iron, which proceeds so rapidly when it is exposed to damp air, is caused by the attraction which the metal has for oxygen. It is very remarkable that iron is unable to combine with the free oxygen always in the air, but is liable to take it from water, its compound with hydrogen; for we find that in dry air iron remains bright and clean for a long time, but very rapidly rusts when exposed to the joint action of air, carbonic acid gas and moisture, under which circumstances water is decomposed, and oxide of iron formed.—*Chicago Machinist.*

SALTING MANURE.—Mixing salt with stable and other manures has a great tendency to prevent the development of grubs and vermin, which are frequently bred in dung when carried unsalted to the fields.

GLORIFYING IN THE GOAD.

LET the wealthy and great
 Roll in splendor and state,
 I envy them not, I declare it;
 I eat my own lamb,
 My own chickens and ham,
 I shear my own fleece and I wear it;
 I have lawns, I have bowers,
 I have fruits, I have flowers,
 The lark is my morning alarm;
 So, jolly boys, now,
 Here 's God speed the plow,
 Long life and success to the farmer!

The above well-known lines form the text for a delightfully-written essay in the July number of the *Atlantic Monthly*, evidently from the pen of Donald G. Mitchell, author of *My Farm of Edgewood*, who, himself a farmer, is well qualified to write on the subject. There are many things in the essay that are not complimentary, but they will nevertheless be read with interest and are worthy of thoughtful consideration.

It appears from an essay in the Report of the Commissioner of Agriculture for 1862, written by Dr. W. W. Hall, that "notwithstanding the sylvan delights of lawn and bower, and the exquisite delight of eating your own hams, the largest class of patients in Insane Asylums come from the 'jolly boys' and their wives and daughters." We learn, also, that in spite of his ample larder, his freedom from envy and carking care, the farmer does not live so long as the pale clergyman whose white hands he looks upon with only not contempt. * * * Three homes out of four, according to this writer's estimate, suffer from the ravages of debt. If you do not trust the testimony of books, but will turn to living men, you will scarcely fare better. One man, whose recreations have been rural, but his business civic, conducts you through his groves and summer-houses, his stone barns and his latticed cottages, but tempers your enthusiasm with the remark, that this fancy farming is sowing ninenesses to reap sixpences. Relinquishing fancy farms, you go the practical man swinging his scythe in his hay-field, his shirt-sleeves rolled above his elbows, and his trousers tucked into his boots. He shows you the face-walls and the compost heap, the drains and the resultant hay-cocks, with measurable pride, but tells you at the same time that every dollar he has earned on that farm has cost him nine shillings. This will never do. A third farmer has inherited his farm, not only without incumbrance, but with money at interest. Under his hands it waxes fat and flourishing, and sends to market every year its twelve or fifteen hundred dollars' worth of produce. But you overhear its owner telling his neighbor that "it 's a Cain's business, this farming: make any man cross enough to kill his brother!" You find this farmer racked with rheumatism, though in the prime of life—bent with the weight of years before his time. He has lost his health just as he has improved his farm, by

working early and late through sun and rain. * * * Everywhere you find one song with variations. Farmers and farmers' wives are not in love with their calling. They are not enthusiastic over it. The "smartest" of the children do not remain at home to take charge of the farm, unless impelled by a sense of duty to their aged parents, or lured by some promise of extraordinary recompense. Everywhere the farmer finds farming to be "a slave's life," "a dog's life," "delve all your days, and nothin' to show for 't," "hard serapin' to make both ends meet." It is so unwieldly a mode of applying means to ends, that, if you must believe him, every quart of milk costs him six cents, with the labor thrown in, while you pay the milkman but five cents at your own door; every dozen eggs which he gathers from his own barn he gathers at the rate of twenty-five cents a dozen, while you are paying only twenty-two. And even when both ends do meet, and not only meet, but lap over, you scarcely find a hearty cheerfulness and sunshine, a liberal praise and unfeigned ardor, a contagious delight in the soil. "Jolly boys" in purple blouses may drive plows around pitchers, but they are rarely met with on the hillsides of New England. If we may credit Dr. Hall, they are quite as rarely seen on the rich, rolling lands toward the sunset.

Is this state of things inevitable? Farmers have a very general belief that it is. They not only plod on in the old way themselves, but they have no faith in the possible opening-up of any other way. Their sole hope of bettering their condition lies in abandoning it altogether. If one is superior to the others, if an only son concentrates upon himself all the parental affection, they do not plan for him a brilliant career in their own line; they do not look to him to obtain distinction by some great agricultural achievement, a discovery of new laws or a new combination of old laws: all their love and hope find expression in the determination "not to bring him up to farming." They "don't mean that he shall ever have to work." Hard work and small profits is the story of their lives and of the lives of their ancestors, and they do not believe any other story will ever be truly told of the genuine farmer. And when we say small profits, we wish the phrase to hold all the meaning of which it is capable. It is hard work and small profits to body and soul; small profits to heart and brain as well as purse. But every plan which looks to better things is "notional," "new-fangled," "easier to tell of than 't is to do;" and so the farmer goes on his daily beat, with a shamefaced pride in his independence, fostered by the flattery of his county-fair orators, yet vituperating his occupation, bemoaning its hardships, and depreciating its emoluments, stubbornly set in the belief that he knows all there is to know

about farming, and scornful of whatever attempts to go deeper than his own plowshare or cut a broader swath than his own scythe.

To suggest the possibility that all this is the result of a limited knowledge, and that the most favorable and beneficial change might be found in a more liberal education and a wider acquaintance with the facts discovered and the deductions made by science, would be considered by a bold yeomanry, our country's pride, as an outbreak of "book farming" in its most virulent form. "You may bet your hat on one thing," says the bold yeoman, "a man may know sunthin', an' be a good minister an' a to'able deacon, but he 's spoiled for farmin'."

Two words are beginning to be coupled in the newspapers and to float about in the air, whose juxtaposition is the cause of many a demure chuckle among the rural population—"Agricultural College." Separately, the words command all respect; united, they are a living refutation of the well-known axiom that "the whole is equal to all its parts." On the contrary, so far are our farmers from believing this, that, while they acknowledge each part to be a very serious and important fact, they look upon the whole as the flimsiest of fallacies.

"Gov'ment is goin' to build an Agricultural College. Farmin' an' learnin' marry an' set up house-keepin'. Guess Uncle Sam 'll have to give 'em a hist with a donation-party now 'n' then. Agricultural College? Yes, Sir! Well, Sir, if you 'll show me a man, Sir, that 's a gradooate from that College, that 'll ever be seen with a hoe in his hand, I 'll give him leave to knock my brains out with it! Yes, Sir! An' it 'll be the best use he can put it to, Sir! He 'll do less mischief that way 'n any other! Agricultural College! Educated farmers! Yes, Sir, I 've seen 'em! Got a grist up in Topsell. Jint-stock farm. The best talent in Essex county 's been a-carryin' on that farm, an' nigh about carried it off, an' themselves along with it. Yes, Sir, the best talent in Essex county, an' had the farm given 'em, an' they 've sunk a thousan' dollars, Sir, a'ready! That 's what I call a Sinkin' Fund, Sir! That 's to begin with. Jones is an educated farmer. He made his cider last fall on scientific principles. Well, Sir, I could put an apple in my mouth, an' swim down Merrimac river, an' have better cider 'n that all the way! Educated farmin' 's a very pootty thing, if a man can be at the expense on 't; but when it comes to gettin' a livin', farmin' 's farmin'. Agricultural College! Yes, Sir, farmin' 's a hard life, lookin' at the best side. Soil 's light an' runnin' to stones. But this here college stuff 's the poorest kind o' top-dressin' you can give it. Learnin' 's a good thing. I 've nothin' agin learnin', but 't a'n't the best use you can make on 't to plow it in. The only way to promote the agricultural interests of Essex county, Sir,

is to keep the farmers jest as they are. Greek 'n' Lattin a'n't state-prison offenses, but they 're sure death to pork 'n' potatoes. Minute you educate the farmers they 'll be as uneasy as a toad under a harrow. What kind of a hand would Doctor Hall or Squire Smith make, to come an' take a farm alongside o' me?"

This is the way our bold yeoman puts it. Planting himself on the indisputable facts of his pork and potatoes, he regards one who stands upon any other ground as a dreamer and a visionary. He forgets that pork and potatoes are not the only facts in the world. The earth itself is a larger fact than anything that springs from it. It is the inalienable inheritance, the sole support of man. Mother and nurse, from the cradle to the grave, there comes no hour when he can withdraw from her nourishing bosom. But, by our farmers' showing, it is but a harsh and niggardly step-mother, opening the fountains of life only under enforcement. Is this reasonable? Is it reasonable to suppose that the one calling which is essential to life, the one calling on which every other depends, should be the Canaan accursed, servant of servants to its brethren? Is it reasonable to suppose that God gave us this beautiful round world, source of all our wealth, almoner of every comfort, possessor and dispenser of all grace and loveliness, yet with such poison in her veins that they alone are safe who deal with her at a remove—she withers the hand that touches her?

* * * * * But if the founders of our Agricultural College, or if any furtherers of rural education, propose to themselves to diffuse light (and dispel darkness) by appealing to farmers—if they think to correct the evils of ignorance by furnishing special opportunities to farmers—if they flatter themselves that they can establish a college of aims and claims so moderate that farmers and farmers' boys will not be discouraged by the time, money or mind required—if they design to narrow the crown that lesser brows may be circled—they are spending their strength for nought. No college and no school can be founded so wisely and fitly, that farmers, as a class, will send their sons to it. Why should they, believing, as they do, that the district school already gives them as much "learnin'" as they need? Boys there can "read, write and cipher." They gain knowledge enough to reckon with the hired man, to keep the tally of the marketing, to compute interest, and to do parish business. What more do they want? Your college-men will talk about selections and temperatures, silex and fluorine; but what has all that got to do with planting the ten-acre lot? Timothy and red-top grew before Liebig was born. A rose by any other name is just as sweet to the agricultural nose. Farmers who have grown to manhood with full faith in the fixity of their condition,

in the impossibility of its improvement, are not to be turned right-about face by a programme. The best patent cultivator could not root out this main article of their creed. Agricultural Colleges may spread all their blandishments; but farmers will not listen to the voice of the charmer, charm he never so wisely. * * * * *

"Parson Edward's been round with the temperance pledge," says one old farmer to another.

"Yes," answers the latter. "Came to me. Asked me, says he, 'Mr. Solomon,' says he, 'have you got any cider in your suller?' 'Yes, Sir,' says I—'sixteen barrels, good as ever you see in you life, I don't care where 't is.' 'Well,' says he, 'Mr. Solomon, my advice to you is, to go an' tap them barrels, every one on 'em, an' let it run!'"

"Guess you told him you 'd wait a spell, did n't you?"

"Hump! Let it run! *I knew his gran'sir!* Meddlin' toad! Advisin' me to throw my cider away! I *KNEW HIS GRAN'SIR!*"

Whenever any amendment is suggested, some gran'sir or other will be sure to block the way. That he has been two generations dead, or that he has no apparent connection with the point at issue, may be indisputably proved, but it does not open the road.

Nor will the farmer's sons be any more ready to avail themselves of their college than the farmer's self. As a general thing, they have either plowed their own furrow "in the good old diabolical way," and walk in it as their fathers walked, caring for no other, or they have acquired so unconquerable a repugnance to the uncongenial toil that they can not conceive of any plan or process by which it can be made tolerable. * * * * * We want our country's soil to be intelligently and beneficially cultivated. We desire that it shall be rescued from ignorance and from quackery, and placed in the hands of active intellect and sound sense. We want our farmers to be working-men, not day-laborers. We want them to be practical farmers, book-farmers and gentleman-farmers in one. The proprietors of the soil stand at the base of society, and should constitute by themselves an order of nobility—but eclectic, not hereditary. Whenever a boy displays a turn for agriculture, there is a fit subject for agricultural education, a proper student for an Agricultural College, whether his father were merchant, farmer, policeman or president. * * * * * The city is currently said to draw its best blood from the country. Let the city pour it back again over field and meadow, turning our wildernesses into gardens. Country and city will be invigorated by an exchange of commodities—the one giving of its nature, the other of its culture. * * * * *

It is left for our country to show that manual and mental skill, strength, exertion and labor are not incompatible—that hard hands may comport with gracious manners—that one may be a gentleman digging in a ditch, as well as dancing in a drawing-room. * * * * * No lover of his country, who brings to this view the same clearness and sense which he takes to political or personal plans, but must hail as an omen of good the efforts now making throughout the North in behalf of agriculture and education.

SHORT SERMONS FOR FARMERS.—No. 8.

WRITTEN FOR THE GENESSEE FARMER.

TRAIN UP A CHILD IN THE WAY HE SHOULD GO, AND WHEN HE IS OLD HE WILL NOT DEPART FROM IT.—PROVERBS 22: 6.

This injunction is applicable to all parents. It is a favorite maxim of infidel philosophy, that children ought to be left free from all educational bias respecting religious doctrines. It is contended, by some, that this is due the child, in order that he may be left unembarrassed in after life in his investigations of truth. Little need be said to show that this notion is in opposition to the revealed will of God. The natural development of a depraved heart is corrupt principles and sinful practices. Such is the natural tendency of human depravity that the inculcation of truth and the restraints of authority in childhood are absolutely necessary to save our race from relapsing into a state of heathenism. The text implies that a child left to himself will take the wrong direction. This corresponds with all experience. That a child left to himself will bring his mother to shame is a fact mournfully confirmed in the history of the degraded and vicious—in the convicts of our prisons and in the victims of the gallows.

"Train up a child in the way he should go." What does this mean? How is it to be done? To train means the use of all the means necessary to secure the end in view. The end is the way the child should go. The way is the love and the service of God. This is the way in which he should go. The duty therefore enjoined in the text involves instruction in religious truth. Children are to be taught to read. The maxim that ignorance is the mother of devotion is as dishonorable to God as it is degrading to man. God is a being of infinite intelligence, and an element of his image in man is a resemblance to the divine attribute of intelligence. It is obvious, therefore, that the injunction to train a child in the way he should go includes intellectual education. The duty of the text has respect to the child's becoming a servant of God. He must therefore be taught his duty to God—the doctrines, precepts and pureness of the divine word must be

inculcated. His waywardness must be restrained, if necessary, by the rod. It must not be spared for his crying. His affections must be cultivated by the repeated and persevering presentation of what is morally lovely. He must receive line upon line, precept upon precept. He must be won to the way in which he should go by parental example. All this requires diligence and watchfulness. No child can be trained up in the way he should go without a steady course of right instruction enforced by right example. Whoever is not willing to sacrifice self-indulgence and indolence to ties, is not fit to bring up a child. Many children are ruined through sheer indolence on the part of those whose duty it is to bring them up in the fear of God. They are too fond of self-indulgence to bestow the unceasing care and ceaseless watchfulness which children require. They have not the patience nor the industry necessary to repeat again and again the same lessons of wisdom and duty. They become weary and careless—the child is neglected and grows up self-willed and vicious.

The text does not designate whose duty it is to bring up a child in the way he should go. This depends upon circumstances. The parent, while living, is bound to do it. We are frequently enjoined in the Word of God to do it. The family is a divine institution to which the church and the world are to look as the fountain of these fertilizing streams by which they are blessed. Nothing can be substituted for the family in training up children for the service of God. There is no human influence which can mold the character like the influence of home. There is no instruction—there is no example so potent as parental. The lessons of a mother can never be forgotten. They control the stern heart of man in the selfish strife of the world as well as in the courtesies of social life. A Wall-street lawyer, who has preserved a remarkable degree of tenderness of heart though long exposed to the hardening influence of contact with the world in its most selfish forms, ascribed it all to the influence of his mother. When asked how it was possible for a man situated as he had long been to maintain such tenderness of heart, he replied: "A serious conversation which my mother had with me when I was four or five years old has affected my whole life. I had joined some boys who were tormenting a kitten. We chased her, and threw stones until we killed her. When I came into the house I told my mother what we had done. She took me on her lap and talked to me in such a moving style about my cruelty to the poor helpless little animal, that I sobbed as if my heart would break. Afterwards, if I were tempted to do anything unkind, she would tell me to remember how sorry I was for having hurt the poor little kitten. I never forgot that circumstance.

For a long time after I could not think of it without tears. It impressed me so deeply, when I became a man, I could never see a forlorn, suffering wretch run down by his fellow-beings without thinking of that hunted and pelted little beast. Even now the ghost of that kitten and the recollection of my dear mother's gentle lessons come between me and the prison at Sing Sing, and forever admonish me to be humane and forbearing."

No human being can influence a child, especially a son, like a mother. There is no place like home for the cultivation of the heart. But parents often die and leave their children orphans in this cold and selfish world. The responsibility of training up such children rests either upon relatives, upon the church or upon the State. It is a shame to either to suffer orphan children to grow up without restraint and without religious instruction.

The obligation to bring up a child in the way he should go rests, to a certain extent, upon school teachers. Their influence in forming the moral character of children is very great; hence they ought not only to be persons of irreproachable moral character, but they ought to inculcate upon their pupils the fundamental doctrines of christianity. But every thing, even the church itself, is subordinate to the family in training children for the service of God. Let parents cultivate a sense of their responsibilities to God with respect to the duty of the text. Let them never forget that, to a certain extent, they will live when dead in their children.

Farmers often neglect their children in one important matter. I mean they do not always recognize the moral influence of a neat, cheerful homestead, surrounded by shrubs and flowers and a well-kept garden. An unsightly, dilapidated house inevitably exerts a demoralizing influence upon a family of children, while a cheerful house, a yard of shade trees, shrubs and flowers, and every thing neat and in order, exert a healthful moral influence, and contributes aid to parents in training up their children in the way they should go. Every dollar expended in beautifying the yard of a farm-house will pay a thousand fold in the virtue and thrift of a family of children in future life.

MANURE.—The hog-pens and compost heaps should receive everything that will decay. The fermentation in compost heaps may need quickening by a few pailfuls of manure liquor. Use plaster to prevent the loss of ammonia, sprinkling it over the manure while it is in active fermentation, and upon stable floors, &c.

To manure and lime wet lands, is to throw manure, lime and labor away.

OXEN FOR FARM TEAMS.

MESSRS. EDITORS: As there is a large and increasing demand for army horses, and as this demand is pretty sure to continue, if not increase, as long as the war lasts, it having been stated in Gen. Halleck's recent report, that the cavalry in the Army of the Potomac averages a remount once in two months—that is, that horses only last two months on an average in that service; and as this is making, and must continue to make horses scarce and high, it would seem that not only duty and patriotism, but their interest would indicate that all farmers that can, should substitute oxen in the place of horses for farm teams. Consequently it may not be amiss to offer some facts and suggestions in regard to the advantages of oxen as farm teams.

There are comparatively few farms on which one or more yoke of oxen can not be kept to good advantage. But the farmers that may find it an especial advantage to keep oxen are, first, those that are just commencing, or are farming on a small farm, more or less in debt, and second, the larger farmer that finds it necessary to keep more than one team.

First, in relation to the small farmer. He buys a yoke of oxen for what one good horse will cost, and most likely gets a yoke in the bargain; so that with the expense of a few shillings for a chain, he is ready to hitch on to anything and go to work. Then the principal part of his work being in the spring, he can, by giving them good feed through the summer, and pumpkins and roots, or a little grain in the fall, and perhaps the fore part of the winter, make them sell for beef from \$25 to \$50 more than he paid for them. This course may be followed on all farms where a yoke of oxen can do the work, and in numerous instances—many more than most farmers are aware of—the turning point between success and failure may be found in the choice of a team to begin with. That is, if the money that it costs to buy and rig out a span of horses for business, and generally for riding around in more or less style, over and above the cost of oxen, had been paid on the debt on the farm, instead of having been paid for perishable property, it would have made a great difference in the final results, if not all the difference between success and failure. And lest this should be taken as a mere opinion, I may be allowed to state that I am satisfied it has been verified in many instances that have come under my observation, as well as in my own personal experience, having succeeded on a small, poor farm, where almost every one prophesied my failure, and where I am satisfied that had I tried to buy and keep a good horse team from the commencement, success at the best would have been much more difficult, if not impossible.

I need not give a detailed statement of the many ways and times that a yoke of oxen will be found useful, handy or convenient; all farmers understand these things. But my principal reason for urging farmers that have use for more than one team, to keep a yoke of oxen is, that by following the course I am going to recommend, they may have the use of a team at a cheaper rate than in any other way. Nor am I about to recommend some new but plausible theory that has never been tried, as the course here proposed has been pursued to a considerable extent in this section.

Those having use for more than one team, who have kept and used oxen to the best advantage, have generally bought in the fall or fore part of winter, when oxen are generally the cheapest, often being in rather low condition, and the owners anxious to sell to raise money, they are frequently bought for from \$20 to \$50 less than they would sell for in the spring, if in fair condition. They can be kept thriving through the winter, if fed good cornstalks and a good allowance of roots, or a moderate one of grain, or if fed hay, with less roots or grain: and plenty of good hay and more grain in the spring, will put them in fine condition for spring work—during which they should be well fed if worked hard. And as in most parts of the country, spring work and breaking up summer fallow in June, constitute the principal part of the heavy work for the season, by giving them good pasture through the season, and pumpkins, roots, &c., in the fall, they will be in good condition to feed in the winter, if they will not sell for beef before winter commences—as has been the case in many instances in this vicinity—at a very satisfactory advance on the cost. By following this course, and selecting oxen that are good feeders, it need cost but very little if any more to make a yoke of oxen very fair beef, than it would to keep a span of horses in good condition, and thus giving a profit of from \$25 to \$50, and sometimes even doubling the money on the oxen, while the horses are wearing out.

This brings us to another important consideration that is seldom thought of by farmers. Where is the man that has fully comprehended the fact that the something more than 500,000 horses in this State—there were 503,725 in 1860—will eventually all be worn out, or die by accident or diseases. That is, whatever value there may be in this large amount of horses, must eventually be lost, there being next to nothing left but what is made by using them. Now for the purpose of making a comparison, I will suppose that horses average ten years labor; then calling them worth \$200 a pair, it would make their labor cost \$20 a year, besides keeping. Now as we have seen that the labor of a yoke of oxen may not

only be had for the keeping, but a profit of from \$20 to \$50 besides, say an average of \$30, which added to the \$20 for the natural wear of the horses, will make \$50 a year. To this should be added at least ten dollars for blacksmithing, wear of harness, and interest on the value of horses over oxen, which makes \$60 in all. Now if 100,000 yoke of oxen could be substituted for 100,000 span of the horses used in this State, and the oxen managed in the way here proposed, it would make a saving of \$6,000,000 in the single State of New York. Or to take another view of the subject. There were 231,740 farms in this State in 1855. Now if a yoke of oxen could take the place of a span of horses on 200,000 of these farms, it would make a difference of \$12,000,000 in the State every year.

But as large as these figures appear, and though from being spread over the whole State, such results may not appear reasonable or consistent with the general opinion of farmers, yet I believe that a little consideration will convince them of the general truth of these statements. While those that have practiced the course here proposed in regard to oxen, will see that I have made my estimates and calculations on a moderate scale. At any rate, I know that were I disposed to give extreme cases or profits, I could give the experience of farmers that have made many times the amount here stated; men, that though they always kept oxen for working teams, and were able to get along with less horses by having them, yet by careful usage, and good care and feeding, would be working them into beef from the time they were brought home. In this way they would make beef of quite a number of working oxen in a year, though seldom having more than one pair at a time, and never more than two, but still realizing a profit over cost in the course of the year, of several hundred dollars; and I have frequently known instances where from \$75 to \$100 were made on a single yoke. True, this course is most profitable with an advancing market; and this is precisely what makes these suggestions particularly seasonable at this time, as we now have an advancing market, with a good prospect ahead. And while it may be said that those that make the most money this way must be good judges of cattle, it is equally true that this is one of the cheapest and most profitable ways that a farmer can make beef.—F., in *Country Gentleman*.

Western New York, 1864.

All lands on which clover or grasses are grown, must either have lime in them naturally, or that mineral must be artificially supplied in the form of lime stone, oyster shells, or marl.

All permanent improvement of land must look to lime as its basis.

POULTRY HINTS FOR SEPTEMBER.

WRITTEN FOR THE GENESEE FARMER BY C. N. BEMENT.

OUR hints for this month must necessarily be short, as most of the hints of the last month, in many respects, will apply to the present.

All kinds of poultry may now be allowed full range of the orchard and fields, where they will find grasshoppers and other insects sufficient to nearly maintain them with very little feed, which is an object of no small importance in the high price of grain.

The chickens intended for market should be well cared for, and should be liberally fed with strong nourishing food in order to get them to the market early; they will then command a high price and return a greater profit than ever afterwards. The early pullets which are intended to supply the places of the old hens should now be selected and have a run by themselves. The last year's pullets should now be liberally fed, and if any are laying they are then in condition for the spit, and should be disposed of at once.

Turkeys may now be led to the stubble and grass-fields where they will pick up the scattered grain and hunt for grasshoppers and all kinds of insects, upon which they will grow and thrive rapidly. A farmer in this (Duchess county) adopted this method, by which he is very successful, raising from one to two hundred turkeys yearly. He drives them to the yard and feeds them grain night and morning, when they are again set at liberty to roam about during the day on a foraging excursion. If they do not return of their own accord they are regularly collected and drove to the homestead and confined for the night; this is never omitted under any circumstances whatever. His turkey crop is no small affair, bringing him from one to two hundred dollars a year.

Ducks now require attention. It is not in every situation that ducks can be kept with advantage; being in a great measure aquatic birds, will not thrive unless there be a sort of ditch, brook, or sheet of water of some kind for them to dabble or sputter in, and it is useless without this to attempt to keep them. They require water much more than the goose; they are no graziers, yet they are hearty feeders, and excellent "sappers-up of unconsidered trifles." Nothing comes amiss to them, and in places where tadpoles and the larvae of aquatic insects abound they can be kept at trifling expense.

When it is considered how great pecuniary benefit may be obtained by the keeping of a few ducks to the general farmer it will be readily admitted that to the humble cottager the boon will be still more highly valuable, as ducks speedily arrive at a condi-

tion for market, and when offered generally command the quickest and most universal sale of any other poultry whatever; they are reared more readily and will eat food of almost any kind. It however should always be kept in mind that the quality of the flesh is highly dependent on the nature of their food; therefore a proper care on this point is essentially necessary. We feel certain that if a common degree of care, attention and regularity of feeding are adopted with ducks they will remunerate the owner as well as any poultry he may bring before the public.

Ducks can be successfully raised in any poultry yard, but require more care, and the breeding is attended with more or less expense in a yard without running water than where there is such convenience. To raise large and superior ducks the males should not be related to the females, nor the females exceed two or three to each male.

The manners and action of the duck, whether upon land or water are curious and pleasant to contemplate. Their regular afternoon parade and march in line, the older drakes and ducks in front, from the pond homewards is a beautiful country spectacle to be enjoyed by those who have a relish for the charms of simple nature. A parcel of ducks, which had been accustomed to their liberty, were for some particular reasons shut up for several hours. On the door of their house being opened, they rushed out and threw themselves into rank and file, and marched with rather a quick step three or four times round a certain space, constantly bowing their heads to the ground, then elevating them and fluttering their wings: the ceremony finished, they quickly adjourned to the water. We have laughed a hundred times at the conceit with which our boyish imagination was impressed, namely, that the act we had witnessed was nothing less than a duckish thanksgiving for their deliverance.

"DIRT FLOORS" FOR STABLES.—In summer the feet of horses which are little used, or those used only upon hard pavements or dry roads, often become very dry, hard and hot, especially if they stand upon wood or stone floors. The wood floors are not only dry but they absorb urine, which decomposes, evolves ammonia, and promotes this effect. An approved remedy for this is to take up the wood and lay a stone floor of small cobble-stones in cement, slanting slightly to the rear; then to fill in the stall 6 inches deep at the rear, with sand or sandy loam, leaving it slanting to the front. Enough of this should be removed and renewed daily to give the horse a bed of clean, dry, but not drying, sand. Little bedding will be needed, and the feet will soon gain a natural moist-

—*American Agriculturist.*

PURE WATER FOR STOCK.

A good draught of good water is, probably, as refreshing to beasts as it is to people. But in the month of August, nearly all domestic animals suffer for want of good water. Sheep will thrive far better if they can have access to pure water. Teams will endure the heat far better if they can have plenty of pure water; and if milk cows must drink stagnant water wherever they can find it, how is it possible for them to give their usual flow of good milk. It is impracticable for them to do this.

Some people allow water to stand in troughs, day after day, many times, and compel their animals to drink it all up. Did such people ever drink water from an old dirty slop pail, after it had been allowed to stand in the sunshine for two or three days? Let them try the experiment of drinking such water, and wait for the result; and then they will be prepared to express a correct opinion, whether or not such water is as good for stock, in the sultry days of August, as pure cold water would be.

Water troughs and water tanks should be cleaned frequently, during the hot days of August and fresh water pumped into them several times during the day.

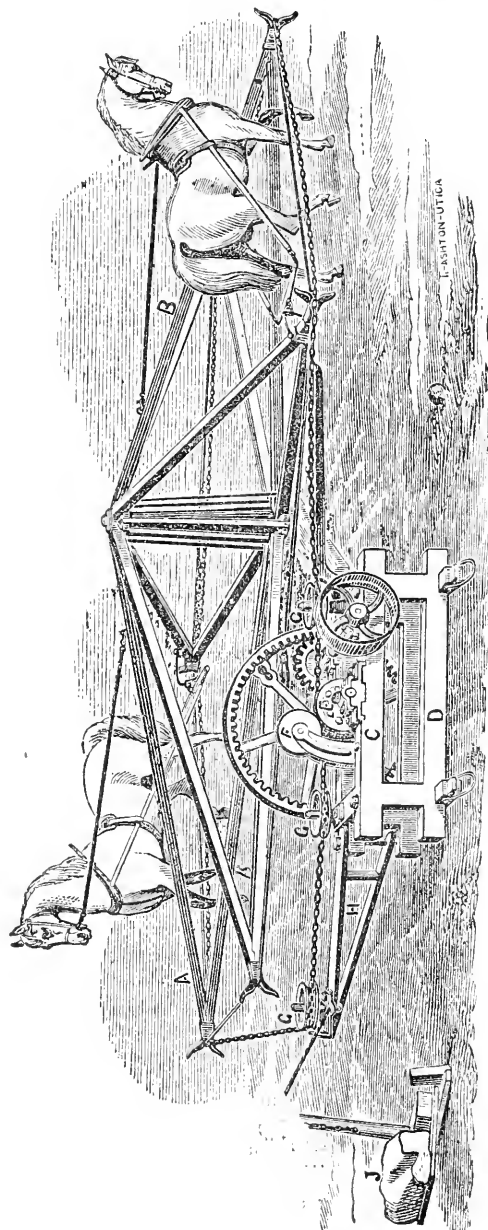
Milk cows require a vast quantity of pure water in hot weather, in order to produce their usual flow of good milk.—*Country Gentleman.*

HAVING things 'near enough,' often causes much trouble. The head-board to farmer A's cart was a little too short but it was 'near enough,' consequently it came out in passing over a jolt, and with it half the potatoes. The keys to Mr. B's wagon thills were rather small, but they were 'near enough'—so they worked loose, the thills came out and the wagon and horse got wrecked together in going down hill. The bar to Capt. C's cow pasture was too short, and yet he thought it 'near enough'—but it dropped out one day and the cattle got through and destroyed his grain. It is better and cheaper in the end, even if it does take a little more time to have things just right.—*Maine Farmer.*

CABBAGE.—The best method to preserve cabbage in winter, is to gather them early, say about the first of November, when they are perfectly free from moisture, and hang them up in a cool, dry cellar. The great secret lies in their being kept dry until needed for use. Another excellent way is, to chop them fine, and pack in a stone crock, in good cider vinegar, adding salt and pepper to suit the taste, and as good sugar as you can afford. If you put in to this preparation a little bruised horse radish root, it will keep sweet and good.

AMERICAN HORSE POWER.

At the last New York State Fair we saw on the grounds a new horse power which struck us as a valuable improvement. It is the invention of Stuart Perry, a farmer of Newport, Herkimer



county, N. Y. Like all useful inventions it was the work of time. Mr. Perry, from theoretical considerations, thought the old circular or sweep powers were constructed on wrong principles. He assumed, what we believe is generally admitted, that power,

when applied to machinery, will, other things being equal, give better net results, in proportion as the force, and the speed with which the force moves on its first application to gear, approach to the exact force and speed required by that part of the machinery which is doing the work; in other words, just in proportion to its *direct application*. Upon the plan of the old powers, animal force, already much too great, if applied *directly* to the work, is made still greater by concentration and accumulation, through leverage, upon what is called the master wheel of a long train of gearing, and the speed, which in the animal was already far too slow for the work to be done, is lessened down on its first application to gear, to a movement much slower still. By such means created, an immense force, moving at very slow speed, is now to be transmitted and converted through much and heavy gear, into a light force moving with great speed.

"Is it any wonder," the inventor asks, "that gear subjected to so great a strain is always giving way? that lubricants do so little good? that the teeth of the wheels are rapidly worn down by the heavy grinding of iron on iron? that the bearings are so soon worn out or displaced? Is it any wonder that through such a circumlocution more than one-half of the whole animal power should be lost on the very machinery of the horse power itself, through the excessive friction of its parts?"

The aim of Mr. Perry was to correct this objection to the old sweep powers, and to bring the animal force into more direct application to the working parts of the machine. He constructed a dozen or more models, and also constructed and tried several full sized powers before he brought his invention to its present high state of perfection.

The cut in the opposite column will give a clear idea of the construction of the New Power.

A B is the large drive wheel, so constructed that it can be set up or taken down in a few minutes, by a man who has had no previous experience with the power. Cast-iron sockets, that clasp together the exterior ends of the wheel's arms, serve also to receive the heads of wrought-iron rods, which bind all its parts firmly together. Each of these sockets ends outwardly in two neatly curved, thick and round headed forks, designed to receive and hold the strong chain which transmits the power of the horses to the jack. Through the beautiful device of a small iron wheel inserted near the bottom of each fork, the chain can not slip, and is rolled in and out in such a manner as to prevent nearly all wear. There are six spaces between the pairs of arms, each ample for one horse, allowing, altogether, the use of six at a time, if so many horses are ever needed. Great strength in this wheel is combined with

ceeding lightness for so large a structure. So well balanced and nicely pivoted is it on its supporting cast-iron center post, that the slightest breeze will cause it to turn, when disconnected from other machinery. In every view, this wheel, though simple in plan, is certainly a mechanical triumph.

C D is the jack. The chain-wheel E on the main shaft is supplied with nine small, very hard cast-iron, adjustable and removable cogs. F is a grooved wheel, used to prevent the chain from riding out of the cogs. G G G are small grooved wheels for guiding the chain. H and J are the tightener and weighted pendulum, to take up the slack of the chain, and to cause it to run truly and without twist. The band-wheel shaft, M, can be placed on the sills of the frame when it is desired to run a rod connected to it by a universal coupling. For running a drag-saw, this shaft is removed, and the main shaft taken out of its boxes, and its ends reversed, bringing the large gear wheel on the outside of the frame.

The inventor claims the following points of superiority over all other horse powers as practically proved :

- 1st. It occupies much less room for stowage, when not in use.
- 2d. It is less heavy and cumbersome—more portable.
- 3d. Can be snugly packed on a common one-horse wagon—and not a heavy load for one horse to draw.
- 4th. Any part can be readily lifted, and loaded, by two men.
- 5th. Not at all liable, like other powers, to be racked or injured by moving.
- 6th. Is very quickly and easily set up for work.
- 7th. No joints loosened by setting up and taking down, no matter how often done.
- 8th. Will cost less for oil, lard, or tallow, to run it.
- 9th. Will cost less for repairs, on account of natural wear; and will last longer.
- 10th. Not nearly so liable to serious breakage from great or sudden strains.
- 11th. Home blacksmithing or carpentry will suffice for almost any carelessness.
- 12th. No danger of long suspensions of work on account of breakdowns.
- 13th. Has no bridge, rod, belt, or any other part of the machine for the horses to step over every turn they make, like all other field sweep powers—a great advantage.
- 14th. *Will do double the work of other sweep powers with the same team.*
- 15th. *Will do more work with the same team than any tread power, and is much more pleasant and safe for the horses.*
- 16th. Is the *lowest priced* of any power in the

market, capable of doing, either, an equal variety or an equal amount, of work.

We should state that this New Power, the first time it was exhibited, obtained the *First Premium* on Horse Powers at the New York State Agricultural Fair, held at Utica in 1863.

This New Power is now manufactured by Messrs. E. Remington & Sons, of Ilion, Herkimer county, N. Y. We presume it will be exhibited at the New York State Fair to be held in this city the present month, and we believe our readers will thank us for calling their attention to it. It is certainly worthy of examination by all who wish a horse power for threshing, cutting hay, straw and corn-stalks, or for sawing wood, either with a drag or circular saw. In the mean time, those wishing further information can obtain a pamphlet giving a full description of the machine, its efficacy, &c., by addressing Messrs. E. Remington & Sons, Ilion, Herkimer county, N. Y.

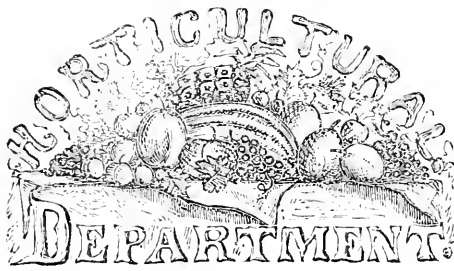
A REFRESHING SIGHT IN A DROUTH.

IN the drouth that has been raging, we noted the marked effect on the green fields of sowed corn and sorgho. The corn so shaded the ground—ground so mellow that it withstood in itself the drouth—that there was no perceptible check to the growth. Here was a most refreshing sight to all the weary, longing eyes that looked from the scorched pastures. And when it was brought to them, what a sight to see the poor cattle feast upon the juicy stalks! This was a pleasure in itself—to the cattle and the be holder—and there were many looking on.

The corn-stalks are not lost if there should be no drouth. They can be harvested, and are more profitable than a crop of hay. In winter they are relishable to stock, and afford milk. The rule is, drouth, no matter how often done. Those who always provide against such a time. Those who have thoroughly tested the matter need no urging.

In a season more or less moist, there is a superabundance of pasture; the grass shoots up and becomes useless. Less pasture should therefore be set apart, and dependence made upon corn. Here is safety. It is, in itself, like a refreshing shower. A small spot will afford considerable fodder; and if your herd is not too large, mix it over into the fall feed. Thus furnishing many guards against mishaps—one of the chief of which is a drouth. Fodder corn is the safe-guard, especially for milch cows. It is indispensable to them. Many farmers have learned a lesson this severe season, and will profit by it next year.—*Valley Farmer.*

LESS land, more pains bestowed in cultivating it, and a variety of good stock, will be the most highly profitable.



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In the United States and Canada.**

[Prepared expressly for the Genesee Farmer.]

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E. McTamney, North Shore.....	"
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F. Shank.....	"
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* See advertisement.

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THE GARDEN IN SEPTEMBER.

THE gardener the present summer, if he has kept his eyes open, cannot have failed to receive many suggestions, from his experience, as to the best means of mitigating the effects of a severe drouth.

He must have observed, in the first place, that those portions of the garden that were under the best cultivation were least affected by the dry weather.

A deep, rich, mellow, well-drained soil will receive but little damage from a drouth that would nearly ruin crops on a poor, shallow, hard, wet soil.

It is the work of years to get a soil into the best condition for gardening. It is impossible to take ground that has been subjected to ordinary *field culture* for a term of years and make a good garden of it the first year.

The soil must be *deepened* by bringing a small portion of the sub-soil to the surface every year, exposing it to the action of the sun, air and frost, and intermixing with it well rotted manure, until it is rich and mellow to the depth of 12 or 15 inches. A garden thus prepared will produce fair crops in the driest season we ever experience in this country.

Another requisite to a garden's withstanding a drouth, is to have it *dry before working in the spring*. Ground worked while wet in the spring will get hard and lumpy in spite of the best efforts of the gardener. *Time will be gained* by waiting a few days, until the ground is in a suitable condition for working.

The application of *coarse* manure to the garden in the spring is a bad plan, as it is certain to injure the crop in case of a drouth.

The best time to add manure to the garden is *now*, just as fast as a crop is removed. And now is the proper time to prepare it for passing through next summer's drouth (should there be one) by deepening and enriching the soil.

In the month of September the work of the garden consists mainly in gathering and storing vegetables which are matured, and in sowing certain crops for early spring use.

Beans. Pull them as soon as ripe, before they become weather-beaten, expose them to the sun a few days until thoroughly dry, then take to the barn and thresh or shell immediately. Limas that have failed to ripen, can be cooked green or dried for winter.

Cabbage and Cauliflower. Full grown, ripe heads should be gathered and used, as they will be liable to burst open if left in the garden. Seeds of earlier varieties should now be sown to keep in frames over winter.

A correspondent of the *Farmer* writes: "Will some one please tell how to keep cabbage through

CURRENT WORMS.—In answer to the question how to destroy the caterpillars on the gooseberry and currant bushes, the *Irish Farmer's Gazette* says: "Dust the bushes with fine, dry road dust, or ashes, while they are wet with dew or rain."

the winter, so it can be got at any time, without keeping it in a cellar?" Although before the time for storing cabbage for the winter, I will give what I have found the best plan for wintering cabbage. In the absence of a barn-cellar, a permanent out-door pit may be cheaply constructed thus: Select a dry knoll where the water will not settle into the pit, dig a pit say 5 feet wide, 12 long and 2 deep, throwing the dirt a little back from the edge of the pit. Set strong posts 8 feet long, about 2 feet in the ground in the middle of each end. Lay a good stiff ridge-pole on the posts and pin it fast. Take slabs or planks, long enough to reach from the edge of pit to ridge-pole and make a roof. Cover the slabs or planks with a little straw and about 6 inches of dirt, digging a trench around the pit to cover the roof, and at the same time turn off the water and beat down the dirt hard and smooth, so that it will shed water; or what is better, sod it over in the spring. Make a door in each end of the pit to ventilate it in mild weather. Pull up your cabbages and store them in, heads down, two layers deep. From one to two hundred heads can be stored in a pit of the above size and taken out whenever desired. In the very coldest weather, a few bundles of straw set against the doors may be necessary to keep out frost. Such an out-door cellar is very convenient for storing many other kinds of vegetables.

Celery. Continue to earth up about once in two weeks, as directed last month. Celery has required a great deal of water the past hot, dry summer.

Cucumbers. Keep picking for pickels until the vines are destroyed by frost.

Melons. If any large, fine specimens are likely to be cut by frost, it would be well to protect in cold nights with old cloths, blankets or straw.

Onions. About the middle of the month is the proper time to set Potato Onions for use early next spring. They should be set 4 to 6 inches apart, in drills 12 or 15 inches. (See March number of the *Farmer*.) Black seed may also be sown to good advantage.

Rutishes. Sow early in the month the winter varieties, such as the Scarlet, Purple and White Chinese Winter, and Round and Long Black Spanish.

Spinach. Sow in drills 12 to 15 inches the Round Leaved and Prickly varieties for use in the spring.

Squashes. Cut off and expose to the sun till dry, and then pack away in a cool, dry place.

Turnips. If too thick, should be thinned, and if in drills hoed.

Strawberries. May be planted all the month, but the sooner the better. (For directions see April number.) Among new sorts Russell's Prolific is worthy of a trial.

P. C. R.

THE HONEY LOCUST FOR HEDGES.

WE have received a circular, issued by Messrs. S. Boardman & Co., of this city, calling attention to the Honey Locust for Hedges. They think it the best plant yet found for this purpose. It is perfectly hardy, enduring the severest winters without injury, and its compact and close growth, in addition to its sharp thorns, bids defiance to all trespassers. It bears pruning well and makes a beautiful hedge. W. Brown Smith, of Syracuse, says, in his opinion, "the Three-thorned Honey Locust is the only hedge plant that is really worth setting in our climate, except perhaps the English Thorn, which, however, is so slow in growth that most persons would be unwilling to wait for it to attain good size."

If there is no other objection to Hawthorne hedges than their slow growth, we think they should be more generally grown. In the late Wm. Reed's nursery grounds at Elizabeth, N. J., there is a mile of Honey Locust hedge which is much admired for its symmetry and graceful appearance, and Mr. Buchanan, who has charge of the place says he thinks it one of the best of deciduous plants for hedging purposes. It will grow on almost any soil and is very tenacious of life. It grows rapidly and requires little care, and makes an impregnable fence.

The subject of fencing is attracting more and more attention, and we should be glad to have the experience of our readers with the honey locust and with other hedging plants.

GRAPE GROWING AT NAUVOO.—A parcel of land, consisting of 120 acres, lying on the north side of Nauvo, was sold a few weeks ago at auction, in one two and three acre lots, for vineyard purposes, at rates averaging from \$75 to \$100 per acre. The grape growers of Nauvo have realized, from their past year's crop, wine to the value of \$70,000. A number of grape-growers in Nauvo, who, five years ago, had no income except what their daily labor gave them, now have stated incomes from their grape crops, averaging from \$1,500 to \$4,000 a year. It is said not to exceed \$125 per acre to trench and plant an acre of ground with grapes, and the third year's growth is usually good for 400 gallons of wine worth \$600.—*Ex.*

A FRENCH gardener has discovered a simple manner of ridding a garden of caterpillars. A piece of woolen stuff having been lodged in a tree by the wind, was found to have become covered with those insects. The man seeing the result, placed several other pieces on different trees; and the caterpillars setting on them in the night, he was able to destroy a great quantity every morning.



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THE GENESEE FARMER FOR 1865.

Owing to the enormous advance in the cost of paper, we are compelled to advance the price of the GENESEE FARMER to One Dollar per annum

Our friends, we are sure, will not regard this as unreasonable when we inform them that we are now paying thirty cents per pound for paper, which formerly cost us from ten to twelve cents per pound.

Of course this advance does not affect our present subscribers; but no subscriptions from this date can be taken at less than one dollar. What our club rates will be we have not yet determined. If possible we shall put them down to eighty cents in clubs of five and upwards. In the mean time, all who subscribe during the present month for 1865, will receive the October, November and December numbers of this year free. We trust all our friends who are desirous of increasing the circulation and usefulness of the FARMER will make a special effort at this time to get subscribers. We shall next month publish our list of premiums, and can assure all who will favor us by obtaining subscribers at this time that we shall do all in our power to compensate them for their kindness.

Tell your neighbors that all who subscribe at this time for the GENESEE FARMER for 1865 will receive the three last numbers of this year free.

The next number of the FARMER will contain a report of the proceedings of the American Pomological Society, to be held in this city, commencing on Tuesday, September 13, and continuing several days. Also a full report of the State Fair, to be held here the week following, September 20-23, together with an account of the Wool Growers' Convention, to be held in this city at the same time. We can assure our friends that no efforts will be spared to make the GENESEE FARMER worthy of their support. Our circulation the present year is nearly double what it was in 1863, and our friends can, by a little effort, double it again in 1865. Now is the time to commence.

Notes on the Weather from July 15th to August 16th, 1864.

The last half of July was hot, dry and dusty, with less clouds than usual. As little rain had fallen for a month, drouth had begun to be felt; of course harvesting and haying was easily done, only the heat being oppressive. The mean temperature of this half was 74.0°, 3.5° above the general average, 70.6°. Of the month the mean was 73.5°, and the general average for the same 70.5° It was a hot month. The water, fallen in this half was only 1.11 inch, and of the month only 1.66 inch. Of this 0.63 inch fell from 11 A. M. of the 25th to 8 A. M. of the 26th. This gave great relief, but the drouth, though lessened, still was heavy to the end of the month. Oats, peas, potatoes and grass had suffered greatly; berries much less than common; Indian corn and late potatoes, it was hoped, might recover. The drouth was wide over the land.

AUGUST opened warm, and the first day gave the mean temperature of 83.3°; drouth heavy; but at 11 P. M. began a rain, which by the 4th gave us 2.13 inches of water. This was most grateful, and witnessed with joy and gratitude, a unanimous rain. The springs and wells had not failed but little, while the surface was very dry. This rain was nearly all absorbed by the earth, and the effect on vegetation was great as well as good. The drouth had closed. Cooler weather followed for a day or two, but the heat soon returned with little diminution. The first half of August was hot. The mean temperature was 74.93°, the highest, except that of this half in 1863, 74.95° known here in twenty-eight years. Indeed, there is but one, in August, 1846, 74.24°, which approaches these two. This year this mean was near 5° above the general average. The coldest morning at 7 was 62° on the 15th, and the next 63° on the 4th. The hottest at 2 P. M. was 92° on the 1st, and 90° on the 10th and 13th, and the hottest day, the 1st, as above, 83.3°, which is hotter than any day in preceding July, and only one-third degree less than of the very hot 25th of June last. The hottest noon here recorded in twenty-eight years was 102° on July 16, 1845, and the hottest day was 85.7°, the 17th of July, 1856.

Rain this half month, 2.18 inches.

COMPARISONS.

The highest daily mean, this year, was in June 25th.....	83.7°
..... July 31st.....	81.3°
..... Aug. 1st.....	83.3°

This shows the relative hottest days this summer.

Compare the highest mean daily temperatures for the following years:

In June 30, 1855, the mean was.....	85.0°, and at 2 P. M. 95°
In June 29, 1856, the mean was.....	84.3°, and at 2 P. M. 93°
In June 20, 1863, the mean was.....	84.3°, and at 2 P. M. 92°
In July 17, 1856, the mean was.....	85.7°, and at 2 P. M. 95°
In July 8, 1852, the mean was.....	85.3°, and at 2 P. M. 97°
In July 19, 1855, the mean was.....	84.7°, and at 2 P. M. 95°
In July 20, 1854, the mean was.....	84.0°, and at 2 P. M. 96°
In Aug. 12, 1854, the mean was.....	84.3°, and at 2 P. M. 92°
In Aug. 1, 1854, the mean was.....	82.7°, and at 2 P. M. 92°
In Aug. 5, 1846, the mean was.....	82.7°, and at 2 P. M. 96°
In Aug. 7, 1854, the mean was.....	82.7°, and at 2 P. M. 88°
In Aug. 2, 1863, the mean was.....	80.3°, and at 2 P. M. 90°

How nearly the extremes approach each other is here obvious.

Compare the following highest average temperatures for the last half of June, the month of July, and the first half of August:

1858.....77.7°, very hot.	1854.....74.8°	1858.....73.5°
1848.....73.2°, quite hot.	1856.....73.5°	1863.....76.1°
1853.....73.2°, quite hot.	1858.....72.7°	1864.....75.0°
1856.....73.3°, quite hot.	1851.....72.6°	1846.....74.2°

This year the hot period has continued from the 15th of June to the 16th of August. In other years, the hot period has rarely exceeded half a month. In the first half of July, 1863, the mean was 74.2°, a hot period, but no day a mean equal to 80°, and only one noon reached 91°, and the others ranged from that to 64°; yet, as a whole, the heat was uncommon, morning, noon and night, with rain in abundance. But this summer the middays have been warmer, and the rain little.

It may be added that the water amounted, in the first four months of the year, to 10.70 inches; in May, 6.54; in June, 1.58; and in July 1.66; and in the seven months 20.53 inches—our full proportion, but unequally distributed.

For ten days the atmosphere was very smoky, but on the 13th the sun rose in splendor, no smoke to be seen, but all swept away by the westerly wind and rain in the north and west. The smoke came here by the westerly winds, and the great fires in the forests in Northwest are said to be the source of it.

The English papers state the prevalence of the severe drouth in England down into the beginning of this month.

A Dollar Paper for Forty Cents.

The *Genesee Farmer* has a large list of subscribers in Canada, and we hope it will never be less. The soil and climate of Upper Canada is very similar to that of Western New York, and our modes of farming are or may be identical. An interchange of views cannot fail to be useful to farmers on both sides of the lake. We should be glad to hear more frequently from our readers in Canada.

The price of the *Farmer* for 1865 will be one dollar per annum. Our Canadian friends when remitting in American money, must add 12 cents for postage, or \$1.12. If they send Canada money, the price, as long as gold keeps at its present premium, will be 40 cents. In other words, the *Farmer* is now 10 cents a year lower than ever before. We hope our friends in Canada will send us some subscribers at this time. All who subscribe now will receive the three last numbers of this year free. Only 40 cents a year for a dollar paper.

Agricultural Exhibitions for 1864.

State Fairs.

New York.....	Rochester.....	Sept. 20-23
Illinois.....	Deatur.....	Sept. 19
Pennsylvania.....	Easton.....	Sept. 27-30
Michigan.....	Kalamazoo.....	Sept. 20-23
Indiana.....	Indianapolis.....	Oct. 3-6
Ohio.....	Columbus.....	Sept. 13-16
Vermont.....	White River Junction.....	Sept. 13-16
Iowa.....	Durlington.....	Sept. 27-30
Wisconsin.....	Janesville.....	Sept. 26-30
Canada West.....	Hamilton.....	Sept. 26-30
New Brunswick.....	Frederickton.....	Oct. 4-7
Nat. Ponomological Soc'y.....	Rochester.....	Sept. 7
N. E. Ag'l Society.....	Springfield.....	Sept. 7
Wool Growers' Con'.....	Rochester.....	Sept. 4

County Fairs.

NEW YORK.

Orleans.....	Allion.....	Sept. 4-11
Queens.....	Jamaica.....	Oct. 4-11
Ontario.....	Candaigua.....	Sept. 29-30
Broome.....	Binghampton.....	Sept. 17-18
Jefferson.....	Canlinton.....	Sept. 15-18
Franklin.....	Malone.....	Sept. 27-28
Cattaraugus.....	Little Valley.....	Sept. 27-28
Chautauque.....	Fredonia.....	Oct. 4-7

ILLINOIS.

Bureau.....	Princeton.....	Sept. 13-16
DeWitt.....	Clinton.....	Oct. 5-7
Randolph.....	Sparta.....	Oct. 5-7
Rushyler.....	Rushville.....	Sept. 28-30
Vermillion.....	Catlin.....	Oct. 11-13
Whiteside.....	Starling.....	Sept. 27-30
Kendall.....	Bristol.....	Sept. 29-30
Hancock.....	Carthage.....	Sept. 29-30
Ford.....	Faxton.....	Sept. 21-22
McLean.....	Bloomington.....	Sept. 26-27
DePage.....	Wharton.....	Sept. 26-27
Pike.....	Pittsfield.....	Sept. 27-28
Fulton.....	Lewiston.....	Sept. 27-28
Warren.....	Monmouth.....	Sept. 27-28
DeKalb.....	DeKalb.....	Sept. 28-30
Carroll.....	Mt. Carroll.....	Sept. 28-30
Ogle.....	Oregon.....	Sept. 28-30
Cumberland.....	Majority Point.....	Sept. 29-Oct.
Washington.....	Nashville.....	Oct. 5-7
Macomb.....	Carlinville.....	Oct. 11-13
Monroe.....	Waterloo.....	Oct. 12-14

OHIO.

Columbiana.....	New Lisbon.....	Sept. 21-22
Fulton.....	Otokee.....	Sept. 21-22
Butler.....	Maplewood.....	Oct. 4-7
Cuyahoga.....	Cleveland.....	Sept. 27-30
Geauga.....	Barton.....	Sept. 20-22
Clark.....	Carlson.....	Sept. 28-30
Lorain.....	Elyria.....	Oct. 4-7
Mahoning.....	Youngstown.....	Oct. 4-7
Medina.....	Medina.....	Oct. 3-4
Morrow.....	Mt. Gilead.....	Oct. 3-7
Stark.....	Canton.....	Sept. 28-30
Union.....	Marysville.....	Oct. 5-7
Huron.....	Norwalk.....	Sept. 28-30
Trumbull.....	Warren.....	Sept. 21-22
Warren.....	Lebanon.....	Sept. 28-30
Wayne.....	Wooster.....	Sept. 28-30
Clark.....	Springfield.....	Oct. 4-7
Clermont.....	Bantam.....	Sept. 20-22
Hancock.....	Findley.....	Oct. 4-7
Lake.....	Painesville.....	Sept. 28-30
Summit.....	Akron.....	Oct. 5-7

IOWA.

Floyd.....	Rockford.....	Sept. 14-15
Van Buren.....	Keosauqua.....	Sept. 17-17
Muscatine.....	Muscatine.....	Sept. 13-14
Clinton.....	Lyon.....	Sept. 13-16
Scott.....	Davenport.....	Sept. 19-20

PENNSYLVANIA.

Union Ag. Association.....	Burgettstown.....	Oct. 6-7
Bucks.....	Newtown.....	Sept. 27-28

Bone Dust.

The demand for artificial manures has been greater this season than ever before known in this country. Several farmers have written to us requesting us to purchase bone dust for them. It can not be had in this city. It is manufactured here, but Mr. Preston has none on hand.

The Markets.

OFFICE OF THE GENESEE FARMER,
ROCHESTER, N. Y., August 30, 1864.

SINCE our last report Gold has declined from 260 to 235½. Owing to the fact that our leading agricultural staples were not relatively as high as Gold, prices have not declined to the same extent. It is admitted everywhere that the crops are much below an average, while the war greatly increases consumption.

There are rumors that Commissioners have been sent from Washington to Richmond, and there are those who think that we are on the eve of Peace. These rumors have affected the price of Gold, and to some extent the price of farm produce.

The stringency in the Money market alluded to in our report of August is far less severe, though the Banks are still short of currency. The Government is in pressing need of money, and one form or other is issuing paper that is used as currency. The new National Banks are rapidly increasing their issues, their notes now in circulation amount to \$40,000,000. We have 400,000,000 of "Greenbacks," in addition to the State Bank circulation of \$170,000,000. Besides this, the Five Per Cent. Legal Tender Notes, and the Six Per Cent. Compound Interest Notes, are to a considerable extent used as currency. The latter are sued at the rate of over \$3,000,000 per week. With this vast issue of paper money—and constantly increasing—it seems vain to hope for any permanent fall in the price of Gold. The price of everything will rule high so long as the war continues. Riots of peace, or successes in the field, may temporarily depress prices—and it is more than probable that they are circulated for its purpose—but until we have some great and decisive victory, until there are some real grounds for the belief that peace is near at hand, there is little prospect of any permanent decline in prices.

The Wool market is again active, and prices are higher. Farmers in this vicinity have sold some ordinary clips at \$1.00 per lb. as high as \$1.20 has been paid in New York for choice lots.

Butter in New York, last week, was in active demand for export to England, and the choicest lots brought 60c. per lb. The price in Gold yesterday from 255 to 255½ will doubtless lower the price of Butter somewhat. There is, however, an undoubtedly scarcity of good Butter in the country, and prices will continue high. Choice lots of Cheese brought 26c. per lb.

Owing to the drought there will be a very short crop of Clover seed. In fact, we fear there will be hardly enough for our own use. Farmers should save every bushel they can gather. It brings 27c. per lb. in New York; Timothy Seed, \$1.00 per bushel; Flax Seed, \$3.75 to \$4.00 per bushel; Hay, \$25 to \$30 per ton.

In this city, White Wheat brings \$2.25 to \$2.50, and Red Wheat 2.00 to \$2.25 per bushel; Barley, \$2.00; Oats, 90c. to \$1.00; Corn, 1.50; Hay, \$18 to \$20 per ton; Potatoes, \$1.75 to \$2.25 per bushel; Turnips, 75c. per bushel; Eggs, 22c. per dozen.

List of Nurserymen, &c.

We publish this month a list of the principal nurseries in the United States and Canada. It has been prepared with much care and labor. The list will be published in the *Rural Annual and Horticultural Directory* of 1865, and if any errors have occurred, we shall esteem it a favor to have them pointed out that they may be corrected in the revised list in the *Rural Annual*.

According to this list there are in New York 222 nursery firms; 47 in Illinois; Pennsylvania 41; Ohio 5; Massachusetts 26; New Jersey 17; Connecticut 16; Indiana 14; Wisconsin 13; Michigan 11; Maryland 9; Iowa 9; Maine 6; Rhode Island 5; Kentucky 4; Delaware 3; District of Columbia 2; New Hampshire 1; Vermont 1; Canada 20.

The American Pomological Society will hold its tenth Biennial Session in this city, commencing September 13. Packages of fruit may be addressed care of James Vick, Secretary of the American Pomological Society, Rochester, N. Y.

Inquiries and Answers.

I wish to procure a machine for sawing timber into lengths for cord wood. I understand that there are such machines in use near your city. Can you tell me where they are manufactured, price, &c.? Do they give good satisfaction? R. J.

E. D. Hallock formerly manufactured such a machine, but does not do so at present. Remington & Son, of Ilion, N. Y., manufacture a machine that will give you good satisfaction.

Will it pay to use lime? I have plenty of limestone on my farm, and old wood, stumps, &c., that I could use to burn them. What will it cost to put up a kiln for such a purpose, and will it be cheaper to build it of stones or bricks? I have an abundance of stones, while bricks cost me, including carriage, \$12 per thousand. I should be glad if some of the readers of the *Genesee Farmer* would give me their views on this subject. GATES.

Special Notices.

Send for a Circular of Grover's Patent Swing BEAM PLOW. See advertisement in May number of the Farmer. au2t D. C. ALLING, Rochester, N. Y.

Hickok's Celebrated Improved Cider Mill for sale at the Genesee Seed Store and Agricultural Warehouse, No. 19 South St. Paul street, Rochester, N. Y., by J. RAPALIE.

A New Book in Press.—A corrected and new stereotyped enlarged edition of *The Field and Garden Vegetables of America*, by Fearing Burr, Jr., Esq., is passing through the press. It will contain many more illustrations of the vegetables described, and much new and valuable information will be added. It will be more compact and desirable in size and shape than the first edition, which was not stereotyped. Messrs. J. E. Tilton & Co., Boston, will bring it out in their well-known attractive style. 1t

ADVERTISEMENTS.

A FEW short advertisements of interest to farmers—and only such—will be inserted in the GENESEE FARMER at twenty-five cents a line, or \$2.50 per square, or \$25 per column, each insertion, payable in advance.

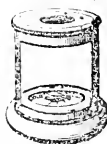
THE GENESEE FARMER:

A MONTHLY JOURNAL OF AGRICULTURE AND HORTICULTURE.

Published at Rochester, N. Y., by

JOSEPH HARRIS.

Terms—INVARIABLY IN ADVANCE—Seventy-five cents a year; six copies for Three Dollars, (only fifty cents each.)



THE CELEBRATED CRAIG MICROSCOPE.—Combining Instruction with Amusement, is mailed, prepaid, for \$2.50; or with 6 beautiful Mounted Objects for \$3.25; with 24 Objects, \$5.50, by HENRY CRAIG,

180 Centre street, New York.

Also, he will mail, prepaid, the Novelty Magnifying Glass, for examining Living Insects, Seeds, Flowers, &c., for \$1.50; or with 12 beautiful Mounted Objects for \$3. Je'63:1'

GRAPE VINES FOR SALE.

40 BEST NATIVE VARIETIES at low prices. Address R. B. SHAW, Canandaigua, N. Y., formerly of Trenton Falls, N. Y.

TILE MACHINE.

THE BEST MACHINE IN AMERICA. Send for a Circular containing description. A. LA TOURETTE, nov'63-ly Waterloo, N. Y.

TO WOOL GROWERS.—Wash your Wool in Doty's Famous CLOTHES WASHERS. You can do it better than in any other way, besides saving the oily water for liquid manure. (See Working Farmer for September, 1864. sep

PROPOSALS FOR LOAN.

TREASURY DEPARTMENT, July 25, 1864.

Notice is hereby given that subscriptions will be received by the Treasurer of the United States, the several Assistant Treasurers and designated Depositories, and by the National Banks designated and qualified as Depositories and Financial Agents, for Treasury Notes payable three years from August 15, 1863, bearing interest at the rate of seven and three-tenths per cent. per annum, with semi-annual coupons attached, payable in lawful money.

These notes will be convertible at the option of the holder at maturity, into six per cent. gold bearing bonds, redeemable after five and payable twenty years from August 15, 1867.

The notes will be issued in denominations of fifty, one hundred, five hundred, one thousand, and five thousand dollars, and will be issued in blank, or payable to order, as may be directed by the subscribers.

All subscriptions must be for fifty dollars, or some multiple of fifty dollars.

Duplicate certificates will be issued for all deposits. The party depositing must endorse upon the original certificate the denomination of notes required, and whether they are to be issued in blank or payable to order. When so endorsed it must be left with the officer receiving the deposit, to be forwarded to this Department.

The notes will be transmitted to the owners free of transportation charges as soon after the receipt of the original Certificates of Deposit as they can be prepared.

Interest will be allowed to August 15 on all deposits made prior to that date, and will be paid by the Department upon receipt of the original certificates.

As the notes draw interest from August 15, persons making deposits subsequent to that date must pay the interest accrued from date of note to date of deposit.

Parties depositing twenty-five thousand dollars and upwards for these notes at any one time will be allowed a commission of one-quarter of one per cent., which will be paid by the Department upon the receipt of a bill for the amount, certified to by the officer with whom the deposit was made. No deductions for commissions must be made from the deposits.

Officers receiving deposits will see that the proper endorsements are made upon the original certificates.

All officers authorized to receive deposits are requested to give to applicants all desired information, and afford every facility for making subscriptions.

W. P. FESSENDEN,
Secretary of the Treasury.

All Respectable Banks and Bankers
throughout the country will doubtless
AFFORD FACILITIES TO SUBSCRIBERS.

U. S. 7-30 LOAN.

The Secretary of the Treasury gives notice that subscriptions will be received for Coupon Treasury Notes, payable three years from August 15th, 1864, with semi-annual interest at the rate of seven and three-tenths per cent. per annum—principal and interest both to be paid in lawful money.

These notes will be convertible at the option of the holder at maturity, into six per cent. gold bearing bonds, payable not less than five nor more than twenty years from their date, as the Government may elect. They will be issued in denominations of \$50, \$100, \$500, \$1,000 and \$5,000, and all subscriptions must be for fifty dollars or some multiple of fifty dollars.

The notes will be transmitted to the owners free of transportation charges as soon after the receipt of the original Certificates of Deposit as they can be prepared.

As the notes draw interest from August 15, persons making deposits subsequent to that date must pay the interest accrued from date of note to date of deposit.

Parties depositing twenty-five thousand dollars and upwards for these notes at any one time will be allowed a commission of one-quarter of one per cent., which will be paid by the Treasury Department upon the receipt of a bill for the amount, certified to by the officer with whom the deposit was made. No deductions for commissions must be made from the deposits.

Special Advantages of this Loan.

IT IS A NATIONAL SAVINGS BANK, offering a higher rate of interest than any other, and the *best security*. Any savings bank which pays its depositors in U. S. Notes, considers that it is paying in the best circulating medium in the country, and it *can not* pay in anything better, for its own assets are either in government securities or in notes or bonds payable in government paper.

It is equally convenient as a temporary or permanent investment. The notes can always be sold for within a fraction of their face and accumulated interest, and are the best security with banks as collaterals for discounts.

Convertible into a 6 per cent. 5-20 Gold Bond.

In addition to the very liberal interest on the notes for three years, this privilege of conversion is now worth about three per cent. per annum, for the current rate for 5-20 Bonds is not less than *nine per cent. premium*, and before the war the premium on six per cent. U. S. stocks was over twenty per cent. It will be seen that the actual profit on this loan, at the present market rate, is not less than ten per cent. per annum.

Its Exemption from State or Municipal Taxation.

But aside from all the advantages we have enumerated, a special Act of Congress *exempts all bonds and Treasury Notes from local taxation*. On the average, this exemption is worth about two per cent. per annum, according to the rate of taxation in various parts of the country.

It is believed that no securities offer so great inducements to lenders as those issued by the government. In all other forms of indebtedness, the faith or ability of private parties, or stock companies, or separate communities, only, is pledged for payment, while the whole property of the country is held to secure the discharge of all the obligations of the United States.

While the government offers the most liberal terms for its loans, it believes that the very strongest appeal will be to the loyalty and patriotism of the people.

SUBSCRIPTIONS WILL BE RECEIVED by the Treasurer of the United States, the several Assistant Treasurers and designated Depositories, and by the First National Bank of Buffalo, N. Y., First National Bank of Albany, N. Y., and by all National Banks which are depositories of public money, and

All Respectable Banks and Bankers
throughout the country will give further information and afford
EVERY FACILITY TO SUBSCRIBERS.

BUENHAM'S AMERICAN BUSINESS COLLEGE, beautifully located on the Hudson River at HUDSON, N. Y.

BILL OF EXPENSES for the full Accountant's Course of Instruction, including Single and Double Entry Book-keeping, with Actual Practice, Business Penmanship, Commercial Calculations and Correspondence, Mercantile Law, Political Economy, Lecture Courses, Necessary English Branches, &c., &c., time unlimited; including necessary Stationery, Blank Books, Diploma and incidentals for the course, **\$60.00**. For sixteen weeks Board, Washing and Room furnished in pleasant private families, **\$65.00**.

ONE HUNDRED AND TWENTY-FIVE DOLLARS is a careful estimate of the necessary expense of securing a first class Business Education, at the best Business College in the Nation.

NO VACATIONS.—Students commence on any week-day in the year. *Extensive Improvements* in the matter and method of instruction. *School Room* and Counting Room so united as to secure to the student all the practical advantages of each. A corps of eight first-class Professors, Lecturers and Teachers constantly employed. I. BATES, "Star Penman of the world," engaged in the Business College.

For College Monthly, Circulars, &c., containing all particulars relative to this popular Institution,

Address

LOUIS W. BURNHAM, Principal,
Business College, Hudson, N. Y.

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EDGAR SANDERS, CHICAGO, NURSERYMAN AND FLORIST.

Has a general assortment of PLANTS, particularly BEDDING PLANTS. Catalogues issued annually, which may be had on application. Address as above, to box 4183, Chicago, Ill. 1t

B. K. BLISS,

DEALER IN

GARDEN, VEGETABLE AND FLOWER SEEDS,

Roses, Flowering Shrubs & Greenhouse Plants, sep
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McELWAIN BROS.,

DEALERS IN ALL KINDS OF

FIELD, VEGETABLE AND FLOWER SEEDS, AT WHOLESALE AND RETAIL.

Particular attention given to sending Vegetable and Flower seeds by mail. For particulars send for a Catalogue.

Springfield, Mass. 1t

BLOOMINGTON NURSERY, BLOOMINGTON, ILL.

13th Year. 220 Acres.

FRUIT, ORNAMENTAL & NURSERY STOCK.

A very general and reliable assortment, cheap for cash.

Catalogues sent on receipt of two red stamps.

sep2t F. K. PHENIX, Bloomington, Ill.

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100,000 PEACH TREES

Of the best market varieties, including HALE'S EARLY, one of the earliest Peaches known. Also a general assortment of

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Catalogues sent on application.

sep1t ISAAC PULLEN, Hightstown, N. J.

FRANCIS BRILL,

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STRAWBERRY PLANTS A SPECIALTY.

Fruit Trees, Vines, Shrubs, Garden Seeds, &c. Catalogues on application. sep1t

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Rochester and Charlotte Nurseries.

ROCHESTER, N. Y.

C. J. RYAN & CO., Proprietors.

1864. Brighton Nurseries. 1864.

T. B. YALE & CO., Proprietors.

Nurseries, Two and a Half Miles East of the City, EAST AVENUE.

Post Office Address, - - Rochester, N. Y.

FRUIT AND ORNAMENTAL TREES.

TEN ACRES OF STRAWBERRIES—of the most desirable kinds—such as French, Russell, Fillmore, Triomphe de Gand, Bartlett, Albany, Austin, Cutter, Downer and Lady Finger. **TEN ACRES OF BLACKBERRIES**—Dorchester and New Rochelle.

FIVE ACRES OF RASPBERRIES—Including the PHILADELPHIA, the best and most productive Hardy Raspberry. It has yielded with me over two hundred bushels per acre of large, red, luscious fruit without protection from sun or frost.

Send for Catalogues gratis.

sep8t

WILLIAM PARRY, Cinnaminson, N. J.

LYONS NURSERY.

APPLE, PEAR, PLUM and other Trees, wholesale and retail. A special attention paid to propagating Grapes wholly in the open air. Fine two year Operto, Concord, Diana, Creveling, Hartford Prolific, Clinton, Northern Muscadine, Delaware, &c.

The Operto Wine received the highest premium at the New York State Fair, 1863, and the Silver Medal at the Winter Meeting, 1864. Send for Circulars.

sep1t

E. WARE SYLVESTER, Lyons, N. Y.

CATAWBA GRAPES.

Wanted, 100,000 Catawba Grapes.

PARTIES having good one or two-year old Vines to offer in lots of 1,000 and upwards, will please address us, stating age, quality and lowest cash price.

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A. G. HANFORD & BRO., Columbus Nursery, Columbus, Ohio.

CONCORD GRAPE VINES.

A VERY LARGE STOCK of the above at low rates by the hundred or thousand. All the leading varieties can be furnished, including Rogers' Hybrids, Adirondac, Iona, Israel, &c., &c.

FRUIT AND ORNAMENTAL TREES, SHRUBS, ROSES, &c.

Address

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WM. ADAIR, Detroit, Mich.

ROSE HILL NURSERY,

Lyons, Clinton County, Iowa.

THE leading Office of this Nursery is the Propagation of the Grape, Rose, Shrubs, raising of Evergreens, and most everything belonging to the trade at retail and wholesale. Terms Cash. sep2t

H. A. TRUXAX, Proprietor.

MEAD'S SEEDLING STRAWBERRY.

A NEW VARIETY, with a large conical berry, brilliant scarlet color, glossy surface, and sweet, juicy flesh of the highest flavor. Price \$3 per dozen, \$25 per hundred. Ready this fall. For circulars, &c., address PETER B. MEAD.

sep1t

Room 47, Mollat Building, 355 Broadway, N. Y.

WESTERN APPLES.

A LARGE STOCK of thrifty, well-grown Trees, comprising many fine varieties of Western origin, and especially suited for Western culture, together with full assortment of nursery stock, at wholesale and retail. A. G. HANFORD & BRO., Columbus Nursery, Columbus, Ohio. sep2t

S. B. MARSHALL,

PROSPECT HILL NURSERY,

MASSILLON, OHIO.

FRUIT TREES, HARDY EVERGREENS, IMPORTED STOCKS, &c., in abundance. sep1t

ROSES.

A LARGE and fine stock of the most beautiful varieties Hybrid Perpetual, Bourbon, Tea, Moss, &c., principally on their own roots. A. G. HANFORD & BRO., Columbus, Ohio. sep1t

New York State
Agricultural Society's Exhibition,
Rochester, Sept. 20, 21, 22, 23, 1864.

PROGRAMME.

Books for entries will be opened at the OSBORN HOUSE on
Friday, September 16th,

And citizens of Rochester and Monroe, and the adjoining counties, are requested to make their entries before the Books are removed to the Fair Grounds.

ON MONDAY, 19th, the Business Office will be opened at the Fair Grounds, where the entries will then be made.

TUESDAY, 20th, arrangements for the Exhibition will be completed, and the grounds opened to the public.

WEDNESDAY, 21st, the Judges will be called and enter upon their duties. Floral Hall, Domestic and Mechanics' Hall, will be opened, and cattle and horses examined in the exhibition rings.

THURSDAY, 22d, Exhibition continued, the Judges will complete their labors, and all the departments of the exhibition will be in order for examination of visitors.

FRIDAY, 23d, PRIZE ANIMALS will be publicly exhibited under the direction of JOHN HAROLD, Esq., General Superintendent.

Premiums will be announced and paid.

Evening Discussions at the City Hall.

TUESDAY EVENING. "Steaming and Cutting Food for Stock." George H. Moore will open the discussion.

MONDAY EVENING. "Fine Wool Sheep: How shall they be classified?" Hon. Henry S. Randall, L. L. D., will open the discussion.

THURSDAY EVENING. "Is it best for Dairymen to Raise Stock or Purchase?" Hon. Lewis F. Allen will open the discussion.

Wool Grower's Convention, at the City Hall, on Wednesday, at 10 A. M.
 sep1t

B. P. JOHNSON, Secretary.

GRAPE VINES

AND

ORNAMENTAL TREES,

FOR SALE BY

MAHLON MOON, Morrisville, Bucks Co., Pa.

A large stock of Delaware and Concord Grape Vines, with many of the new and rare varieties, including Iona, Israella, Adirondac Loomis' Honey and Maxatawny. Also, an extensive assortment of ORNAMENTAL TREES AND SHRUBS, embracing most of the new and rare Evergreens, are offered at moderate prices.

Catalogues forwarded on application sep1t

WILLIAM H. STARR,

PROPRIETOR OF THE

East New London Nurseries,

EDW. FRYER, MANAGER,

NEW LONDON, CONN.

Green House, Bedding-out Plants, and Bulbs in great variety. Roses in variety—Perpetual Bloomers. Table, Hand and Bridal Bouquets, &c. All kinds of Plants, Fruit and Ornamental Trees, Evergreens, Ornamental Flowering Shrubs, &c.

All orders by mail will receive prompt and particular attention. sep1t

SEED WHEAT—SEED WHEAT.

THE undersigned have now in store an invoice of PURE VENETIAN (Red Mediterranean) WHEAT, imported this year and selected in Europe by their agent expressly for Seed. It compares favorably with any Seed Wheat ever brought to this country, and to those who desire to renew their Seed it can not fail to give satisfaction. A sample of this wheat has been sent to the office of the Genesee Farmer, where it can be examined by parties interested.

For sale in large or small quantities by

P. B. MINGLE & CO., Seedsmen,
103 Market street, Philadelphia, Pa.

sep1t

OSAGE ORANGE.

FINE one-year old plants.

A. G. HANFORD & BRO.,
Columbus Nursery, Columbus, Ohio.

100,000

sep2t

Hardy Bulbs for Fall Planting.

My Illustrated Annual Catalogue of
HARDY DUTCH & OTHER FLOWERING BULBS

AND

GUIDE TO THE FLOWER GARDEN

Is now in press, and will be ready to send out early in September. It consists of full and plain descriptions of the finest

HYACINTHS,

CROCUSES,

TULIPS,

SNOW DROPS,

CROWN IMPERIALS,

LILIES, &c., &c., &c.

with ample directions for Planting and Culture. My Catalogue this season is beautifully illustrated, containing, among other fine illustrations, TWO FULL PAGE ENGRAVINGS, and one beautiful COLORED PLATE of the

JAPAN LILY.

Sent free of postage by mail to all who apply enclosing 10 cents. Catalogues always sent to my customers of the previous year as soon as issued without ordering.

My importations from Holland the present season have never been equalled for extent, variety and excellence.

sep2t

JAMES VICK, Rochester, N. Y.

Fruit and Ornamental Trees.

ELLWANGER & BARRY solicit the attention of Planters, Nurserymen, and Dealers in Trees to the great stock of Standard and Dwarf Fruit Trees, Ornamental Trees, Shrubs and Plants

Of every description, which they now offer for the Fall Trade. The stock is of the first quality in all respects.

A Wholesale Catalogue is just published, and will be sent, post free, to applicants who enclose a stamp.

ELLWANGER & BARRY.

sep1t

Mount Hope Nurseries, Rochester, N. Y.

PINE HILL NURSERY.

THE undersigned respectfully solicits the attention of Planters to his large stock of well-grown

FRUIT TREES.

APPLES—Standard and Dwarf.

PEARS—Standard and Dwarf.

PLUMS, PEACHES, QUINCES, &c., &c. CHERRIES—Standard and Dwarf.

HARDY GRAPE VINES.

All the leading best varieties. Also, SHADE AND ORNAMENTAL TREES, all at moderate prices.

sep2t

Price List sent on application.
 GODFREY ZIMMERMAN, near Buffalo, N. Y.

ELISHA MOODY.

GEO. H. MOODY.

EDWARD M. MOODY.

NIAGARA NURSERIES,

LOCKPORT, N. Y.,

E. MOODY & SONS, PROPRIETORS,

WHOLESALE AND RETAIL DEALERS IN

Fruit and Ornamental Trees,

SHRUBS,

sep

And Stocks for Nurserymen. It

CONCORD, DELAWARE, HARTFORD

PROLIFIC, DIANA, MAXATAWNEY, ALLEN'S HYBRID, IONA and ROGERS' HYBRID, grown from wood of original Vines, and the best new Grapes in the country. They combine the fine flavor of the foreign with the hardiness of the native varieties. Vines at low prices, with strong and well-ripened wood.

Send for Catalogue, with illustration of Rogers' Hybrid No. 19. Address WM. PERRY & SON, Bridgeport, Conn.

sep1t

White or Hedge Willow for Sale.

CUTTINGS of this superior live fence plant, of suitable length, at \$1 per 100 or \$5 per 1000. Warranted true SALIX ALBA. mh D. S. HEFFRON, Utica, N. Y.

FROST & CO.,

GENESSEE VALLEY NURSERIES,

Rochester, N. Y.

Parties who desire to purchase *first quality***STANDARD OR DWARF FRUIT TREES,**Small Fruits, Ornamental Trees, Shrubs, Plants,
&c., &c.,In large or small quantities, are solicited to inform themselves
of our Stock and Prices.Our Nursery contains nearly **FOUR HUNDRED ACRES**,
which enables us to fill orders even of the most extensive char-
acter, while particular attention is given to orders amounting to
small sums.Our stock will be supplied at the most *favorable rates*.The following *Catalogues*, with prices, are furnished on applica-
tion upon receipt of five cents for each:No. 1 and 2—*Descriptive Priced Retail Catalogue of Fruits,*
Ornamental Trees, Plants, &c.No. 4—*Wholesale Priced Catalogue of Fruits, Ornamental*
Trees, &c., for Nurserymen, Dealers and others, who may wish
to buy in large quantities for the *Autumn of 1864.* Address
sep2t **FROST & CO., Rochester, N. Y.****BULBOUS FLOWER ROOTS****FOR FALL PLANTING.**WE are now prepared to fill orders for the following and other
hardy Bulbs for Fall Planting—all large, sound, flowering
roots:**Hyacinths,****Tulips,****Crocus,****Narcissus,****Snow Drops,****Iris,****Lilies,** many varieties,
Chinese Pæonies, over seventy-five splendid varieties.New Editions of our Ornamental Tree and Wholesale Cata-
logues are now ready for distribution.**ELLWANGER & BARRY,****Mount Hope Nurseries,****Rochester, N. Y.**

sep1t

Central Nurseries, York, Penn.

We would call attention to our unusually fine assortment of

FRUIT AND ORNAMENTAL TREES, SHRUBS,
VINES, &c.,for the coming season. We would especially direct attention to
our superior stock of**SHADE AND ORNAMENTAL TREES,**

suitable for street and lawn planting, and

Ornamental Shrubs and Vines.**EDWD. J. EVANS & CO.,****York, Penn.**

sep2t

HOMES FOR ALL.—Large and thriving settlement
of Ellwood, 35 miles from Philadelphia by railroad. Good
soil, good water, fine crops—best fruit section in the Union.
Farm lands \$20 per acre, one-quarter cash, balance on bond and
mortgage. Good society, churches, schools, mills, &c. To visit
the lands, leave Vine street wharf, Philadelphia, 7 A. M., 9 A. M.,
2 P. M., 4 P. M.

For full information and paper, apply to

R. F. DANFORTH,
au3t Ellwood, Atlantic Co., New Jersey.**SHORTHORNS FOR SALE.****THE BULL HOTSPUR** 4080 A. H. B. by Duke of Gloster
(11,382) (dam Daphne (imported) by Harold (10,299), rich
roan, culved May 15, 1860. Also, three **YEARLING BULLS**
and five **BULL CALVES**, mostly by Hotspur, and a few
HEIFERS.

Catalogues sent on application.

T. L. HARRISON, Morley, St. Lawrence co., N. Y.

HALE'S EARLY PEACH**RIPENS TEN DAYS** before Troth's and Serrate Early York.
Tree very hardy. Also, full assortment of leading market
varieties.

sep2t

A. G. HANFORD & BRO.,
Columbus Nursery, Columbus, Ohio.**JENNINGS'S GREAT BOOKS**

FOR FARMERS AND STOCK-RAISERS.

SHEEP, SWINE AND POULTRY:

EMBRACING

The History and Varieties of each; the Best Modes of Breeding;
their Feeding and Management; together with the Diseases
to which they are respectively subject, and the appro-
priate Remedies for each.By **ROBERT JENNINGS, V. S.,**Professor of Pathology and Operative Surgery in the Veterinary
College of Philadelphia; Professor of Veterinary Medicine in
the late Agricultural College of Ohio; Secretary of the
American Veterinary Association of Philadelphia;
Author of "The Horse and his Diseases," "Cat-
tle and their Diseases," etc., etc.This is the third of Dr. JENNINGS'S Great Series for farmers and
stock-raisers, and like its predecessors will be found written in
a pre-eminently practical and suggestive style, and while issued
in a cheap and convenient form for popular use, it yet grasps the
entire subject with all its necessary details. No one who has ob-
tained the previous volumes will fail to purchase this, and taken
as a whole, this series of books will stand out for years to
come, as beacon lights for the guidance of that intelligent and
largely increasing class, who wish to avail themselves of all the
modern improvements in the rearing, breeding and general
treatment of our domestic animals. With numerous illustrations.
12mo., cloth. Price, \$1.50.**CATTLE AND THEIR DISEASES**—Embracing
their History and Breeds, Crossing and Breeding, and Feeding
and management; with the Diseases to which they are subject,
and the Remedies best adapted to their cure. To which are ad-
ded a List of the Medicines used in treating Cattle, and the Doses of
the various remedies requisite. By **ROBERT JENNINGS, V. S.**
With numerous illustrations. 12mo., cloth. Price \$1.50.**THE HORSE AND HIS DISEASES**—Embracing
his History and Varieties, Breeding, and Management and Vice's;
with the Diseases to which he is subject, and the Remedies best
adapted to their Cure. By **ROBERT JENNINGS, V. S.** To which
are added Rarey's Method of Taming Horses, and the Law of
Warranty, as applicable to the purchase and sale of the animal.
Illustrated by nearly 100 engravings. 12mo., cloth. Price \$1.50.Agents and canvassers will find these very desirable works.
Liberal terms made with the trade.Either one or all of the above books will be sent to any address,
post paid, on receipt of price, \$1.50 each. Send your orders to**JOHN E. POTTER, Publisher,****617 SANSON ST., PHILADELPHIA.**

jy3t

DISSOLUTION.**THE** copartnership heretofore existing between **WILLIAM**
SMITH, THOMAS SMITH and **EDWARD SMITH**, under
the firm and style of **W., T. & E. SMITH**, of the Geneva Nur-
sery, Geneva, N. Y., is this day dissolved by the withdrawal of
EDWARD SMITH. The Nursery business will be continued by
WILLIAM SMITH and **THOMAS SMITH**, under the firm and
style of **W. & T. SMITH**, who will attend to all business con-
nected with the late firm.**WILLIAM SMITH,**
THOMAS SMITH,
EDWARD SMITH.

Geneva, June 2d, 1864.

sep1t

RUSSELL'S STRAWBERRY.**RUSSELL'S GREAT PROLIFIC.**—This new Strawberry is
undoubtedly the best Strawberry yet known, being the
largest and most prolific bearer.

Price, \$1.00 per dozen, \$3.00 per 100.

W. & T. SMITH, Geneva Nursery, Geneva, N. Y.

sep1t

STRAWBERRIES.—Now is the time to plant for a
spring crop. *All the new sorts are now ready for deliv-
ery.* Priced Descriptive Catalogues of Strawberry Plants and
all other Fruit and Ornamental Trees, Plants and Seeds for farms,
gardens and nurseries, will be sent gratis to any address. Plants
carefully packed and prepaid by rail for any distance, and safe
arrival guaranteed. Also, explicit directions for the cultivation of
the Strawberry in upland gardens and fields, with price of
plants. The yield last season in my method of cultivation was
over 400 bushels per acre. The time for planting is October and
November. Carriage of all packages paid to Boston and New
York.

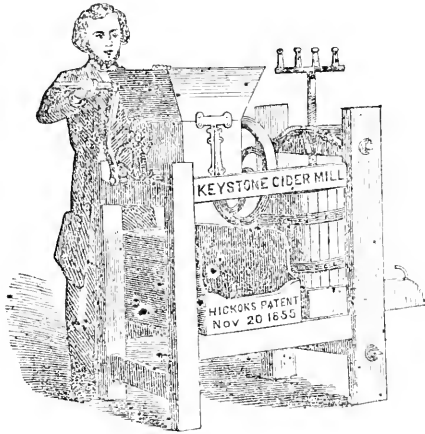
au2t

B. M. WATSON,
Old Colony Nurseries, Plymouth, Mass.**PEAR TREES—PLUM TREES.**The subscribers have for sale for the Fall Trade a very large
stock of **STANDARD** and **DWARF PEAR TREES, PLUM**
TREES, STANDARD APPLE, GRAPE VINES, &c. Our
Trees have made a fine growth the present season. Those want-
ing first-class Trees and grown on a clay and gravelly loam soil,
will do well to give us a call.

sep1t

W. & T. SMITH,
Geneva Nursery, Geneva, N. Y.

**THE CHAMPION.
HICKOK'S
PATENT PORTABLE KEYSTONE
CIDER AND WINE MILL.**



10,000 in Use and Approved.

THIS admirable machine is now ready for the fruit harvest of 1864. It is, if possible, made better than ever before, and well worthy the attention of all farmers wanting such machines. It has no superior in the market, and is the only mill that will properly grind grapes. For sale by all respectable dealers.

On account of the very heavy excise tax on spirits, there will be a large demand for good cider, (which is, by the way, the most healthy beverage there is, especially for those afflicted with liver complaints,) and every one having apples will make them up into good cider, if they would study their interests. I intend having good receipts for making cider printed and distributed among dealers, for the use of those purchasing mills.

If your merchant does not keep them, tell him to send for one for you, or write to the manufacturer yourself. Address the manufacturer,
W. O. HICKOK,
a183

Eagle Works, Harrisburgh, Pa.

**HUTCHINSON'S
Family Wine and Cider Mill.**

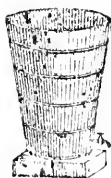


an2t Messrs. HUTCHINSON & BROTHER, Auburn, N. Y.

With Press Combined, Large and Small Size, for Hand, Horse or other Power. Is strong and reliable, compact, simple and neat of construction, durable, economical and cheap. Grinds all kinds of fruit, fine, fast and easy, and Presses dry.

Some VALUABLE IMPROVEMENTS have been added to this Mill since last season, and we now feel confident that it is just what the people want.

For full particulars, Descriptive Pamphlet, or Mills, address the manufacturers,

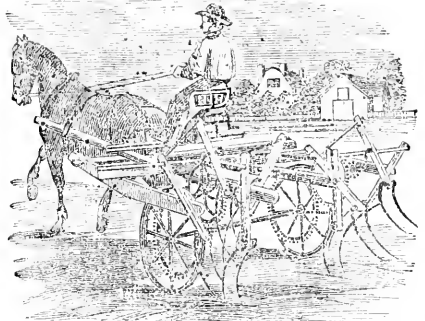


THE KEEPER'S FILTER.—This Filter possesses every practical and scientific arrangement for the objects intended, viz: rendering the most impure rain and river water free from all decomposed organic matters and gases, color, taste or smell. Pure water is the chief conservator of the human system, and can be easily obtained by using this the best portable Filter known. They are durable, convenient and cheap; can be transported in safety any distance and are sure to give satisfaction.

Manufactured by
JAMES TERRY & CO., Rochester, N. Y.
a183

Descriptive Catalogues sent free.
MADE FROM 20 CENTS!—Call and examine, or ten samples sent free by mail for 25 cents. Retail for \$2 by R. E. WOLCOTT, 170 Catharine Square, N. Y. m/64-17

BULLARD'S IMPROVED



**PATENT HAY TEDDER,
Or Machine for Spreading and Turning Hay.**

THE subscriber having purchased the exclusive right for manufacturing and selling (for the State of New York)

Bullard's Improved Hay Tedder,

now proposes to furnish the Farmers to the extent of his ability, which must necessarily be limited the coming year, owing to the difficulty of obtaining good and competent mechanics.

Those who desire to avail themselves of one of these great labor-saving machines will please send in their orders early to be recorded in turn. "First come, first served." Address

SILAS C. HERRING, New York.

N. B.—Pamphlets and Circulars will be sent by mail to those who request them.
D. R. BARTON, Rochester, N. Y., Agent. m/64-17

HALE'S EARLY PEACH.

THIS fine early variety is rapidly growing in popularity with market orchardists. It is proving to be the best very early Peach in cultivation, ripening full seven to ten days before Trotter's Early and Serrate Early York, hitherto the most popular very early sorts.

Hale's Early was originated in Portage county, Ohio, by a German who claimed to have brought the seed from the old country, and was first introduced to notice by Mr. Hale, a nurseryman of Summit county, who called it Hale's Early German. Subsequently the "German" was dropped.

In the spring of 1850 it was sent out from the Columbus Nursery. Prior to this it had been placed in the hands of a few amateurs and others for trial, and had been moderately disseminated in the vicinity where it originated.

It is a white fleshed free-stone peach, above medium size, color greenish yellow, with deep carmine cheek, fruit always fair, very juicy, with a rich rickish flavor and delightful fragrance.

The tree is a remarkably handsome, vigorous grower, hardy and healthy. The blossom buds also seem harder than most other sorts.

sep2t

A. G. HANFORD & BRO., Columbus, Ohio.

TO FARMERS!

BRADLEY'S TORRACO FERTILIZER AND BRADLEY'S B X L Superphosphate of Lime, are for sale at wholesale and retail by the Manufacturer,
WM. L. BRADLEY;
Sales Office 24 Broad street, Boston.

Send Pamphlets containing testimonials in favor of his Torraceo Fertilizer, Bradley's X L Manual on the Culture and Care of Tobacco, with Illustrations, can be had by addressing the undersigned.
WM. L. BRADLEY,
Highest Cash prices paid for Bones. my

**TO CLEAR THE HOUSE OF FLIES,
USE DUTCHER'S CELEBRATED**

LIGHTNING FLY-KILLER,

a neat, cheap article, easy to use. Every sheet will kill a quart.

ly

SOLD EVERYWHERE.

5c

SWEET POTATO PLANTS,

[Price \$4.25 per thousand.]

OF THE LERANON YELLOW OR NAHEMOND variety. These plants will be packed in boxes of five and ten (each) such, so as to travel safely ten days. Grown by
F. A. SCHWILL & BRO., Cincinnati, Ohio.
my64

TOLEDO NURSERIES.

GEORGE BAKER respectfully invites the attention of Nurserymen and Dealers to his large and unusually fine, stocky and well-branched

Fruit and Ornamental Trees, Shrubs, Roses, Grape Vines, &c.,

consisting in part of

- 200,000 STANDARD APPLE TREES—3 and 4 years old, very fine.
- 10,000 DWARF APPLE TREES—3 and 4 years old, very fine.
- 10,000 STANDARD PEAR TREES—2 and 3 years old, very fine.
- 30,000 DWARF PEAR TREES—2 and 3 years old, very fine.
- GRAPE VINES—Catawba, Clinton, Delaware and Concord.
- CURRIANTS—Cherry, Red and White Dutch.
- GOOSEBERRIES—Houghton's Seedling.
- EVERGREENS—A large and fine Stock of NORWAY SPRUCE, 3 to 6 feet;

SCOTCH and AUSTRIAN PINE, 3 to 8 feet.

Our assortment is complete, which enables us to fill dealers' orders.

Wholesale Price List sent on receipt of stamp. a3t

GEO. BAKER, Toledo, Ohio.

The London Club Coffee.

Prepared from the Best Old Java.

TREED and recommended by the Editor of THE INDEPENDENT.
 THE HOME JOURNAL.
 THE EVANGELIST.
 THE METHODIST.

Commended also by THE CHRISTIAN ADVOCATE, by THE BAPTIST EXAMINER, by most of the leading Editors, and by the most respectable PHYSICIANS. Nearly all prominent Journals and Professional men are using and commending

THE LONDON CLUB COFFEE.

"We have ourselves used this Coffee," says the Editor of THE INDEPENDENT, "and have no hesitation in commending it as an agreeable, healthful, and every way reliable article."

This Standard Coffee is prepared FROM THE BEST OLD JAVA, and has no connection with any of the adulterations drifting about the market. It is easily distinguished from all other Coffees by its remarkable fragrance, strength and flavor.

[From Dr. Van Kleeck.]

GENTLEMEN: I have been using your Coffee in my family, and consider it SUPERIOR to any I have met with. I find it to contain only the healthiest ingredients, together with a very unusual proportion of PURE JAVA COFFEE. Having recommended it extensively in my practice, I have heard but one opinion in its favor as a nutritious and healthy beverage, and well adapted to nervous temperaments. JAS. B. VAN KLEECK, M. D.,
 February 15, 1864. No. 160 Franklin-st. N. Y.

This Coffee is put up for the trade in cases of 36 lb, 60 lb, and 100 lb.

The price of the Club Coffee to the consumer ranges from 24 to 35 cents.

To the Trade a Liberal Discount. Terms—Net Cash.

CHAS. H. LYON, Sole Agent,
 No. 45 Courtland street, N. Y.

3y6t

Schenectady Agricultural Works.

G. WESTINGHOUSE & CO.

PROPRIETORS AND MANUFACTURERS OF

Improved Lever and Endless Chain Horse Powers, Combined threshers and Cleaners,

Threshers and Separators,

Clover Machines,

Circulars and Cross-cut Wood Sawing Machines,

Dog Powers for Churning, &c., &c.

Send for a Circular containing description and prices of the above-named machines.

Particular attention is invited to our new

Thresher and Cleaner

with RIDDLE SEPARATOR. This machine was introduced last season with great success, and we believe is not equaled by any in use.

We also would invite notice to our

Improved Wood Sawing Machines,

both Circular and Cross-cut, which are complete in every respect.

Address all communications to

G. WESTINGHOUSE & CO.,

SCHENECTADY, N. Y.

ap

BAUGH'S

RAW BONE

SUPERPHOSPHATE OF LIME.

BAUGH & SONS,

SOLE MANUFACTURERS,

Store No. 20 South Delaware Avenue,

PHILADELPHIA.

THIS article has for many years enjoyed a high reputation as a manure of great efficiency and of unequalled permanence, and we scarcely deem it important, in our semi-annual advertisement, to say more than merely call the attention of buyers to it. But we will also state to farmers and dealers in fertilizers that it has been our constant aim to render our Raw Bone Phosphate more and more worthy of the full confidence of farmers, by the use of every facility at command, and the aid of scientific skill, in essentially improving its qualities, and we have never allowed this purpose to be interfered with by the great and steady advance in the cost of all matters pertaining to our business, throughout the past two years.

The Raw Bone Phosphate may be bad of any regular dealer in fertilizers (to whom we advise farmers to apply), or of the manufacturers and proprietors.

BAUCH & SONS,

No. 20, South Delaware Avenue,

PHILADELPHIA.

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AGENTS WANTED
SALARY \$50. PER MONTH
 OR COMMISSION ON SALES
 FOR CIRCULARS AND SPECIMENS ADDRESS
L. L. TODD & Co.
 68 WILLIAM ST N. Y.

NEW ILLUSTRATED CATALOGUE

ROCHESTER CENTRAL NURSERIES.

SEND FOR A CATALOGUE

AND

SPECIAL TERMS OF SALE,

AND

ORDER YOUR TREES DIRECT.

Address

C. W. SEELYE,

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Rochester Central Nurseries, Rochester, N. Y.

GRAPES.

DELAWARE, Concord, Hartford Prolific, Rogers' Hybrid, and other fine Grapes, on their own roots, and of splendid growth. A. G. HANFORD & BRO.,
 Columbus Nursery, Columbus, Ohio.
 sep2t

[ONLY AUTHORIZED EDITION]

GENERAL GRANT'S DARING SPY!

THE MOST THRILLING, REAL NARRATIVE PUBLISHED.
 SPLENDID OFFER MADE BY THE PUBLISHERS.
 Twenty Thousand Dollars to be Given Away!

Read the following and then Subscribe, and get your Friends to Subscribe.

JOSEPH HARRIS, ESQ.—DEAR SIR: We hereby pledge ourselves to the readers of the *Genesee Farmer* to fully and fairly carry out all the promises which we herein make regarding the premiums to be distributed among those who send for our new and popular book, *Lieut. Gen. Grant's Spy*. Among the purchasers of every \$100,000 worth of *Gen. Grant's Spy*, we will distribute fairly Twenty Thousand Dollars in accordance with the conditions named below.



GEN'L GRANT'S DARING SPY
 PASSING THE VICKSBURG BATTERIES DURING A TERRIBLE STORM

This scene represents a real incident!

Read and then Send at Once.

NINE THOUSAND DOLLARS will be expended in THREE FARMS or HOUSES, each worth \$3,000, and each to be located at the will of the parties to whom they are awarded. The remaining FIFTY-THOUSAND DOLLARS will be expended in first-class Agricultural, Sewing and other valuable Machines, Pianos, Melodions, Fine Gold and Silver Watches, (but no bogus or cheap jewelry); yearly subscriptions to Harper's, Godey's, Atlantic, and other standard monthlies; New York Ledger, Mercury, Weekly, and other popular first-class weeklies, whether literary, political or religious; Elegant and Valuable Books, Family Bibles, Photograph and other Albums, ranging from \$3 to \$30 apiece.

To fully convince those who read this that we are sincere in our offer, we, in addition, pledge ourselves to publish in this paper the names and addresses of parties to whom awards are made—together with our legally attested affidavit, under oath, that all is done as we promise. Greater security for fairness none can ask. For Terms, &c., see next column.

Get up your Clubs at Once! The Larger the Better!

In remitting, name the date of paper containing our advertisement.

These are our Terms:

Single Copies 25 Cents. Five Copies \$1.00.

Our Premium List is numbered from *One* upwards, and each letter is placed thereon in *regular* and *impartial* order as it arrives. Each book sent for represents *one* number, and each ~~two~~ books sent for represents *five* numbers, whether the \$1 is sent by one person or by *five* persons. Thus, while a single subscription (25 cents) may take one of our highest premiums (worth \$3,000), a club of *five* (or \$1) has one *extra* opportunity for the same.

Remember that for your money you *certainly* get a better and handsomer book than is now published for the same sum, so that the Premiums you may get *besides* the book, you really get without the slightest risk; and, considering the value of these, there is no one who would not make the investment. 25 cents or \$1, or \$5, is nothing, when you are likely perhaps to get a premium worth \$3,000, most especially when the offer is made, as it is, by responsible parties, and fairness secured in every way. In remitting name the paper where you see our advertisement.

Address (cash with order.)

C. W. ALEXANDER & CO., Publishers,
 123 SOUTH THIRD STREET, PHILADELPHIA, PA.

THE Genesee Farmer

PRACTICAL SCIENTIFIC FARMERS OWN PAPER

VOL. XXV. SECOND SERIES.

ROCHESTER, N. Y., OCTOBER, 1864.

No. 10.

WALKS AND TALKS ON THE FARM.—NO. 10.

I HAVE just been threshing. The spring crops turn out badly, but the winter wheat is better than I expected. There are those who assert that we shall have to abandon wheat culture in Western New York, but I never believed them. They claim that spring crops require less labor and pay better, but it certainly has not been the case this year. Barley, oats and peas have not paid expenses. Corn has done pretty well, but it will by no means turn out as well as last season. Beans, too, are light, and there were so many planted that the price, it is thought, will be low. Potatoes will not be more than half a crop. On the whole it has been a poor season for farmers.

Prices have been good, but just at present the market is dull and lower. There is a great scarcity of money. The enormous bounties paid for substitutes absorb all the currency for the time being, and millers and produce dealers find it difficult to get the money necessary to carry on their business. There never was so much money afloat as at the present time, but the bounties absorb the whole of it. Think of it. Most of the towns in this vicinity pay \$600 to any one who will procure a substitute, and the county pays \$400 in addition. Both town and county issue bonds for the whole amount. The money is raised on these bonds and handed over to the substitutes or those who procure them. This is not the case merely in this section. The same thing is carried out to a greater or less extent all over the country. If the 300,000 men called for by the draft cost \$1000 each, it amounts in the aggregate to \$300,000,000. The effect of this, for the moment, is a tight money market and lower prices of farm produce. But the effect in the end will be precisely the reverse of this. The money is borrowed from the Future and spent in the Present. The bonds themselves will undoubtedly be used as money in large transactions, while the money raised on them will soon find its way back into general circulation: Unless we have Peace, therefore, the present falling off in prices will be only temporary. Should the

war end immediately, gold will have a tumble and carry every thing down with it. But farm produce will be affected less than anything else, because consumption *must* go on, and there is unquestionably a serious deficiency in the crops.

My buckwheat is ripening up finely, and if we have no frost for a week longer will turn out splendidly. Mr. B— sowed his three weeks earlier than I did, and I understand that it is “blasted.” I was told to-day that he thought mine was the best crop between here and the city, “but then,” said he, buckwheat is a crop that no book farming *can* spoil!” My other crops have turned out poorly enough, and I presume it is all laid to book farming. I think the *season* has had something to do with it. I certainly have not farmed according to the books, or I should have had my farm all drained and should have been able to get my barley, oats and peas in six weeks earlier than I did. As it was, there was no rain from the time they were sown till they were ready to harvest—and then it came! Book farming would have had the land rich and free from stones and weeds. It would have been plowed in the fall and been mellow as a garden. It would have stood the drouth better, and the crops would have been doubled and the profits quadrupled.

I intended to have gone this week to the Provincial Fair at Hamilton, but could not get away. I want to get a turnip drill and a pair of Scotch harrows. Our common harrows are miserable affairs. At our own State Fair there were no harrows that came up to my ideas of what a harrow should be. Those made by John E. Morgan, of Deerfield, are the best I saw. I understand there were some Scotch harrows on the grounds, manufactured at Poughkeepsie, but I did not see them.

I have just been plowing a wheat stubble. There is considerable wire-grass in it, and some quack. Do you suppose harrowing would do any good, or would it be better to let the land lie rough, so as to expose more surface to the frosts? The land is so dry that it could be cleaned now as well as in the

summer. I have no doubt that if it was well harrowed and cultivated it would kill nearly all the grass, and then if the land could be thrown up two furrows together, or what in England they call ridging, it would lie dry and nice all winter, and be in first-rate order for potatoes early next spring.

I never saw grass improve so much as it has since the rain. It seems to be trying to make up for lost time. If we have a late, open fall it will be a great help in getting the stock through the winter, as fodder will be very short. I saw over a hundred head of cows pass here the other day that were bought in Chautauque county for about \$20 per head. The drouth was so severe that farmers were compelled to sell their cows. With butter worth fifty cents a pound, they must have been hard pushed or they would not have parted with them.

This morning, on going into the stable, one of my horses was found all curled up and twisted completely round in the stall. There was a strong hempen halter on him, and it held him down so tight that when it was cut it snapped like a bow-string. The poor horse must have suffered terribly. The flesh on his nose, on each side of the rope, was swollen so as to leave an indentation half an inch deep. The rope was between his fore legs, and had chafed the skin badly. He is quite lame and stiff this morning, and will probably not be able to work for a week. I think the English method of tying up horses with a chain running through a ring, and a weight attached to the end of the chain, is far better than simply tying them with a rope to the manger. The weight prevents the halter from being slack when the horse is eating, but gives him plenty of rope when he wants to lie down. There is, in this case, no danger of his getting his leg over the rope.

I understand that Mr. Cornell, of Ithaca, N. Y., has given 300 acres of good land and \$300,000 for a State Agricultural College, to be located at Ithaca. It is a noble gift, and the prospects now are that we shall have an Agricultural College and an Experimental Farm worthy of the State. I feel more interest in the latter than the former. We need a farm where experiments can be made on our leading crops. Farmers can not afford to make experiments with that care and system necessary to insure satisfactory results. Mr. Lawes' experiments cost him from \$10,000 to \$15,000 per annum, and that amount will be necessary here to carry out a systematic series of experiments on wheat, barley, oats, rye, Indian corn and the grasses. We do not want experiments on cattle and sheep. Those can just as well be made in Europe—the climate making no difference. But on grains, grasses and vegetables we must experi-

ment for ourselves, for we can not tell how far the climate affects the growth and manurial requirements of the plants.

Potatoes promise to turn out better than was expected, though they can not be an average crop. I planted mine too late. They say "slovens do well once in seven years," and I thought at one time that for once I was in luck, and that the late planted would be the best. But I do not now think so. The tops are beginning to die, while the fibres connecting the tubers with the stalks are very thick. The matter in these fibres ought to have gone into the tubers, and would have done so had the potatoes been planted earlier.

My onions are in the same category. I had only half a crop, on account of bad seed, and those that did grow are pretty much all top. I bent them down hoping to induce them to bottom, but all to no purpose. The roots strike deep into the soil and the tops grow most luxuriantly, but the bottoms are not there. For the future I mean to raise my own seed, and to be very careful to select onions that bottom early. I presume that seed is often raised from small onions that have thick necks, like mine, and there can be little doubt that the onions raised from such seed will partake of the same habit. So of turnips. Most of the ruta bagas I have seen this year have long, thick necks, running up in some cases five or six inches above the bulbs. The turnip was originally an annual, running to seed the first year. We have by cultivation induced it to form a bulb, but it has still a tendency to run up to seed. If we would check this tendency we must, in raising seed, reject all turnips that show any inclination to run too much to top, planting only the best bulbs.

My turnips, where I applied superphosphate, are splendid. I never saw better. They pay pretty well, too. I sent some to the city yesterday, and got five shillings a bushel for them. At such prices no crop will pay better. I have always contended that we should raise turnips and feed them out to stock on the farm. But even with corn at \$1.50, turnips are not worth over 25 cents a bushel to feed out—that is judging by the amount of nutriment they contain, and then at this season of the year we do not need them for feed, and to store them is no easy matter.

I was talking to-day with a farmer from Mendon. It is one of the best wheat towns in the county, but he says farmers are almost discouraged in trying to raise wheat. Last year the midge did little damage, but this year the Soules wheat has suffered very much. He has not yet threshed, but those who have done so find that the crop turns out very badly. In former times he used to raise wheat after wheat and get 25 bushels

per acre. Has raised 52 bushels of wheat after oats. "But," said he, quite feelingly, "those times are past. We shall never do it again. I now get only 20 bushels, and sometimes 10 bushels, and this year I expect only 5 bushels. There is plenty of straw, but no wheat. The midge and rust destroy it." He says there is not more than half as much wheat sown this fall as last.

I missed it in not selling my wool. I made up my mind that I would sell when offered a dollar. It reached that figure. One of my neighbors whose wool was not as good as mine sold at that price. I could have got the same. But I thought it would be higher, and so I hoped no one would come along and offer me a dollar, for I make it a rule when I have deliberately made up my mind to take a certain price to let the article go when the price is offered. The Deacon told me he would send me a man who would give me my price. I told him not to say any thing to him. I should really have felt sorry had any wool dealer offered me the dollar. But as I wished, so it was. No one came, and I have the wool still on hand. I saw a farmer taking in a nice load of wool this morning. I asked him what he expected to get. "A dollar," he said. I did not tell him, but I thought he had not heard the news. When I went to town I had the curiosity to go to a wool dealer and inquire the price he was paying. "Fifty to sixty cents, but we do not care to take it at that." Ten days ago pelts brought from \$1.75 to \$2.25 each. Now all that the dealers pretend to pay is \$1.00 to \$1.50.

I was so busy getting ready to sow wheat that I would not stop to thresh. I bought my seed wheat, paying \$2.50 per bushel for it. The same wheat would not bring \$2.00 now. Mediterranean wheat is worth only \$1.75. Corn still holds its own. You can not buy it for less than \$1.50. Corn at \$1.50 and wheat at \$1.75 is absurd, especially when the crop of wheat is confessedly one third below an average. I was talking to one of the most experienced millers in the city yesterday, and he thought that wheat would be higher. He was about the only miller, however, that was buying anything.

Well, we must possess our minds in patience. If what we have to sell brings a lower price, so will what we have to buy. I would cheerfully sell wheat for \$1.00 and wool for 50 cents if *paper* would fall to its old rates! But there is no probability of its doing so. In fact, after this panic blows over, and the money paid for bounties begins to flow back into its old channels, I expect to see things higher than ever. The money has not left the country, and more and more is being issued every day.

Barley is somewhat lower, but still brings a high price. One of our Rochester papers has for weeks

quoted barley at \$1.25, while it has sold in some instances as high as \$2.25, and \$2.00 has been the general rate. I do not know what it is to-day, but I see this same paper still quotes it at \$1.25! At the same time it gives the price at Buffalo as \$2.11, and at Chicago \$1.85 @ \$2.02½. I presume the Buffalo and Chicago quotations are correct, but it is too absurd to suppose while barley brings over \$2.00 in Buffalo it is worth only \$1.25 in Rochester.

Beef cattle last week in New York declined fully one cent per pound. Much of the stock in market was in bad condition. When shall we learn that it does not pay to raise or feed poor cattle? The best beeves sold for 18 cents per pound dressed weight, and in a few instances for 19 cents; while there were many inferior animals that sold as low as 8 cents. We may just as well raise an animal that will dress 10 cents as one that will dress only 5 cents. The former would be worth \$180, while the latter only brings \$40.

Sheep declined a little, but not as much as cattle—say ½c. per pound. Good lots brought 8½c. per pound live weight, while a few extras sold for 9 cents. The greatest decline was in hogs. They have been higher than ever before known, but last week the market was decidedly over-stocked, and prices fell 2 cents per pound.

With corn worth \$1.50 per bushel, pork must bring a high price to make pig feeding profitable. There will be considerable soft corn, which can be fed to hogs to better advantage than to any other stock. I give mine soft corn, and a little pea-meal in addition. Peas are very "buggy" this year, and it is best to feed them out as soon as possible. They are now the cheapest food we can use.

On my way home to-day I stopped to look at Mrs. Munn's grapes. They are splendid. She has 546 bearing vines, seven years from planting. They are trained on post and slat trellises, seven feet high. The vines are fourteen feet apart each way. The whole vineyard occupies 2½ acres. In 1862 it produced 7 tons of grapes; last year 11 tons, and this year the crop is estimated at 15 tons. They are all Isabellas. Mr. Adams has charge of the vineyard, and has certainly been very successful. He expects to sell the crop for 10 cents per pound. Grapes in this section have done unusually well the present season. The hot, dry weather, where they were well cultivated, was just what we need for grapes.

I have never tried it, but a farmer who has tells me that the best time to sow carrots and parsnips is in the fall. The plants start early in the spring, and get the start of the weeds. The winter, he says, does not hurt the seed. I suppose it does not germinate till spring.

NEW YORK STATE FAIR.

THE Twenty-fourth Annual Exhibition of the New York State Agricultural Society was held in this city September 20-24. The weather was delightful, and the farmers of this section turned out by tens of thousands, while the attendance from distant parts of the State was unusually large. On Wednesday it was estimated from the number of tickets sold that there were 35,000 people on the ground, while on Thursday the attendance was even more numerous.

The exhibition itself was not equal to that on many former occasions. Farmers are very busy and labor is scarce, while in this section the draft was being enforced during the Fair week. Under such circumstances it is surprising that the exhibition was as good as it was, while the immense concourse of people which attended from day to day proves conclusively that these annual exhibitions of our agricultural and mechanical productions have lost none of their attractions.

Let us look first at the cattle. There are many empty stalls. Mr. Thorne does not exhibit. Mr. Sheldon, President of the Society shows ten or twelve head of splendid Shorthorns and some Alderneys, but not for competition. Ezra Cornell shows some good animals. In the class of Shorthorn cows, three year old and upwards, he seems to have taken every prize. Listen to those boys. "Here's one the're putting a blanket on. I'll bet he's a big un." Not a bad test of excellence! In this case the animal is not large, but he is certainly a good one. It is a Shorthorn bull owned by James S. McCall of Lyons. He is a young breeder, but has already some fine animals. C. W. & J. W. Wadsworth, of Geneseo, exhibit largely, and have carried off several prizes for Shorthorn heifers and working cattle. It is encouraging to see the young men of the country exhibiting, and carrying off prizes. Elihu Griffin, of Dutchess county, shows some good Shorthorns. This large, red three-year old Shorthorn bull shown by W. B. Dinsmore, I heard a farmer say yesterday was the best animal on the ground, but the judges apparently did not agree with him, for there is no ribbon on his horn. Mr. Jackson, of Seneca county, also shows a red three-old Shorthorn bull, and takes the third prize. There are many other Shorthorns worth looking at, but we must hurry.

The Devons are few in number, and by no means of extra character. I got criticized last year for making the same remarks in regard to the show of Devons at Utica, but is it not true? Will they compare with the Shorthorns? The Devon men must bestir themselves. They are just the cattle we want in many sections of this State and New England,

but if I am not mistaken the breed is attracting less attention than it did a dozen years ago.

The same may be said of Herefords. There is but one exhibitor—E. Corning, jr., of Albany. The Herefords are losing ground. They are not good milkers, and it is claimed that a Shorthorn will lay on fat more rapidly and mature earlier. The Herefords, however, make the best beef, and I should think, better working cattle.

There is a small show of Ayrshires. This ought not to be. The dairy interest is one of the most prominent in the State, and Ayrshires are confessedly unsurpassed as milkers in proportion to the food consumed. The little Alderneys or Jerseys are out in full force. They are attracting more and more attention each year. The principal exhibitors are President Sheldon, (who, however, does not compete for the prizes), B. G. Moore, W. B. Dinsmore and E. Corning. I like this heifer of Mr. Dinsmore. She has rather a bull's head, but the Alderneys are so fine and delicate that a slight dash of coarseness is not so objectionable as it would be in a cow of any other breed. It is almost impossible to get strength without coarseness. But of course it is better to have it in the bull than the cow. The Alderneys give richer milk than any other breed of cows, and it is surprising that the gentlemen who have suburban residences do not keep them. I do not think there is an Alderney in Rochester or vicinity.

Now for the sheep. There is a meagre show of Leicesters. Mr. Jeffrey, of Canada, is about the only exhibitor. Mr. E. Gazeley, of Dutchess county, who has exhibited fat sheep for so many years, at the Fairs, and at the winter meetings, shows seven head of good Cotswolds. He purchased two rams from F. W. Stone, of Guelph, C. W., last fall. One of them now weighs 414½ pounds. He sheared 18 pounds of wool. The Cotswolds will increase more rapidly for the food consumed than any other sheep. But the mutton is not as good as that of the South Downs. There is a splendid show of the latter, principally from George W. Brown of Dutchess county, who recently purchased Mr. Thorne's entire flock.

Of Merino sheep the show is probably the largest ever made in the State—so large that we have not time to examine them in detail. Mr. Chamberlain's Silesians are looking uncommonly well this year. They are the handsomest fine wool sheep on the ground.

There is but a small show of swine. The Suffolks of Mr. Dinsmore are worth looking at. They remind one of old times. Are the Suffolks going out of fashion, that there are so few shown, or have they become an old story? There are no Essex or Berkshires, so common a few years ago. Pig breed-

ing is on the decline. I was looking at Mr. Dinsmore's Suffolk's yesterday, when a man came along and remarked as he passed the pen, "There is some bigger ones up yonder." He evidently had not much respect for the rules of grammar, or the rules of breeding. Size, to him, was more important than form—and it is probably so with most people. The big pigs alluded to are old acquaintances. They are the Cheshires shown by T. T. Cavanagh, of Watertown. Last year, at Utica, he had a four-year old sow of this breed that weighed 1,130 pounds. She is here again this year, and attracts more notice than many a worthier object. Her weight this year is not stated.

The Cheshires are a large white hog, resembling the Yorkshires, but I should judge rather coarser. Mr. C. claims that they will fat earlier, and that while they are larger they have smaller bones. They are sold principally to go West.

We will take a look at the chickens, and then visit our friends the inventors and implement makers. Mr. Heffron, of Utica, Dr. E. A. Wendell, of Albany, and Mr. Simpson, jr., of New Hudson, are the principal exhibitors. They show very fine collections of all the leading breeds. Judging from the crowd round the boxes it would seem that though the chicken fever has entirely passed away, there is still much interest felt in the improvement of our poultry. May it always be so.

Among the implements and machines, the hay press, manufactured by the "New York State Beater Press Co.," of Little Falls, attracts much attention. It is worked by two horses, and will beat and press 500 pounds of hay into a bale in eight minutes. Mr. Ladue, the general agent of the company, says they have exported a considerable quantity of hay to England, and have made a good thing of it. This is owing to the high price of gold. Four bales, or one ton, occupy less space than a cord of wool.

Emery's cotton gin is another attraction. It has been manufactured at Albany for some years, but when the Southern trade was cut off, Mr. Emery took it to England, where it attracted much notice. It has been sent to India and other cotton-growing countries, and has doubtless done something towards keeping the Lancashire spindles running and helped to dethrone "King Cotton."

There are two or three implements on the ground for digging potatoes that look as though they would work well, but we could judge better after trial. The wind-mills of E. W. Mills, of Marcellus, for pumping water, attract much attention. Reaping and mowing machines are well represented. There is not much that is new. Allen has a contrivance attached to his mower whereby the knife can be made to cut closer or higher without stopping the

machine, which is an improvement. C. E. Petrie, of Cherry Valley, Ohio, shows a model of staunchion cattle stalls, so arranged that the cows can be let out, one at a time, without going into the stable.

There are but few seed drills on exhibition. The Messrs. Brown, of Shortsville, and Bickford & Huffman, of Macedon, are on hand as usual. Draper Stone, of Pittsford, shows a gang plow with a seed attachment for dropping the seed in the furrows. Mr. Wiard, of East Avon, shows a good collection of implements—gang-plows, subsoil plows, cultivators, plows, &c. Pitts & Brayley, of this city, also make a good display. Their straight draft plow is very popular in this neighborhood, and their Empire Feed Cutter has no superior.

Whiteside, Barnet & Co. show their well-known corn and bean planter. S. E. Ensign, of White's Corners, has a good drill for sowing seeds in drills. He thinks you get more corn when sown in drills than when planted in hills, and that if it is sown in straight rows you can cultivate so close that the labor of hand hoeing is little more than when it is in hills and cultivated both ways. Some farmers in this neighborhood, who have adopted the practice of drilling in their corn, are of the same opinion. If the plants are too thick they thin them out with the hoe.

Corn shellers are abundant. Rapalje shows several, manufactured East. Jacob Brinkerhoff, of Auburn, shows an excellent one, with a cleaner attached to it. It took the first prize. W. W. Wilson, of Jamestown, has also a good sheller. It consists of a wooden cylinder, with spikes driven into it, and shells rapidly and clean.

Here we are among the wringers and washing machines. Their name is Legion. We can not stop to examine or even look at half of them. Wringers are an acknowledged institution. Washing machines have not as yet proved so useful. Doty's we have tried and know to be good. Here is one on a similar principle, made by Harris & Co., at Livonia Station. Then we have the "Roeking Washing Machine," made by E. Chipman & Co., New York, and the "Challenge Washing Machine," with a flaming handbill setting forth its merits. "Washes perfectly clean six shirts in seven minutes," &c., &c. It is made by S. W. Palmer & Co., Auburn. Success to the washing machine men. The wringer men do not need our good wishes.

Hutchinson & Brother, of Auburn, are making cider with one of their hand cider mills. It works well. Rapalje shows one of Hickok's cider mills, which, confessedly has no superior.

Here we have a cheese making apparatus, called the "Union Dairyman," manufactured by O'Neil & Co., Utica. A Canadian farmer has just purchased

me. They are about to introduce "cheese factories" into Canada, and will need such machines. They have been brought to a high state of perfection.

Horse Rakes and Horse Forks are numerous.—The Remingtons, of Ilien, exhibit Myers' fork, manufactured by them; Wheeler, Meleck & Co., of Albany, Randall Brothers, of Coxsackie, and others also show good horse forks for unloading hay. Raymond C. Moore, of Geneva, show a good fork for breaking barley and short oats, which would have been very useful on many farms in this vicinity.

John Miles, of Rochester, takes the first prize for his running mill. U. F. Hecker, of Bath, also shows a good machine for cleaning grain, removing oats from wheat, &c.

There is a good show of plows, but nothing particularly new. There is still great room for improvement in the construction of plows. Remington & Co., of Ilien, exhibit their handsome steel mold-board plows, and also one with a sub-soil attachment. Van Brockland & Alvord, of Rome, also exhibit a similar implement for breaking up the sub-soil.

The steel toothed cultivators of Remington & Co. attract much attention. They are unquestionably excellent implements. The Johnston Cultivator, made at the suggestion of John Johnston, and named after him, is admirably adapted for working on heavy soils.

Remington & Co. also exhibit Perry's Horse Power alluded to and described in the last number of the *FARMER*. It was kept in operation on the grounds, and attracted much attention.

J. E. Morgan, of Deerfield, shows a good harrow, and also some good wagons and carts. He is manufacturing quite a number of the former for government. He asks \$150 for a wagon. He has an extension reach which is very simple and useful.

The show of grains, vegetables, &c, is very fine for the season. W. P. Ottley, of Phelps, shows a good barrel of white Kentucky wheat. It is not as white as it was two years ago when he got the seed from Kentucky. He also shows a barrel of excellent Mediterranean. H. D. Schenck, of Brighton, takes the first prize for a barrel of Soules wheat. W. H. Cobb also shows a good barrel of white wheat. C. J. Hill & Son, the enterprising millers of this city, exhibit a barrel of white wheat from Canada, the crop of 1863, which is excellent. It is the best wheat on the ground, but is not allowed to compete, one of the rules of the Society being, very properly, that all articles must be raised by the exhibitor.

Of barley and oats the show is small. In fact the exhibition of grains has never been a leading feature at our fairs. It is time that more attention was paid to them.

WOOL GROWERS' CONVENTION.

PURSUANT to a call signed by many of the leading agriculturalists of the State, a Wool Growers' Convention was held in this city September 21. Hon. Henry S. Randall was appointed temporary Chairman, and called upon H. T. Brooks, of Pearl Creek, to state the object of calling the wool growers together. Mr. Brooks alluded to the importance of a State organization of wool growers and sheep breeders, and on motion of Hon. T. C. Peters, of Darien, a committee of three was appointed to draw up a constitution. The Chair appointed as such committee, T. C. Peters of Genesee, Wm. Kelly of Dutchess, and T. S. Faxton of Oneida.

The Committee drew up a Constitution, which, after the name of the association had been changed from the "New York Wool Growers' Association," to the "New York Sheep Breeders and Wool Growers' Association," was adopted unanimously.

Hon. Geo. Geddes moved that a committee of seven be appointed to report the names of officers of the association, and the Chair named the following gentlemen as such committee:

Geo. Geddes, A. B. Conger, A. S. Upham, C. F. Marshall, A. F. Wilcox, E. E. Brown, and Lionel Sherwood. The Committee made the following report, which was accepted and adopted unanimously:

President—HENRY S. RANDALL of Cortland Village, Cortland county.

Vice-Presidents—Lewis F. Allen of Erie, Aaron Y. Baker of Steuben, Davis Cossit of Onondaga, Theo. S. Faxton of Oneida, Geo. H. Brown of Dutchess, Winslow F. Watson of Essex, Samuel Faile of Westchester, and D. W. Percy of Rensselaer.

Corresponding Secretary—H. T. Brooks of Pearl Creek, Wyoming.

Recording Secretary—D. D. T. Moore, of Rochester, Monroe.

Treasurer—Luther H. Tucker of Albany.

Executive Committee—F. G. Marshall of Steuben, Abraham Stocking of Livingston, James Geddes of Onondaga, E. E. Brown of Cayuga, and Elijah Ennis of Wayne.

The Association then adjourned to meet at the call of the President.

It is understood that it is the intention of the Association to hold a spring show of sheep in their fleeces next May at Canandaigua. And it is also proposed to have the sheep sheared publicly at that time; and also to have each day a public sale of sheep during the exhibition. Public discussions of topics connected with Sheep Husbandry will take place on the evenings of the exhibition.

It is also proposed to hold a winter meeting for the purpose of discussing matters pertaining to the interest of wool growers and sheep breeders.

DISCUSSIONS AT THE NEW YORK STATE FAIR.

MEETINGS were held each evening during the New York State Fair at Rochester, the Hon. A. B. CONGER, of Rockland county, presiding. There was a large attendance, especially on Wednesday evening, but the subjects selected did not call out that general interest which has been manifested on several previous occasions. They were of great importance. All were willing to listen and learn, but few were prepared to speak, and fewer still to furnish those facts which we so much need to establish correct agricultural principles.

The subject selected for discussion on Tuesday evening was :

STEAMING AND CUTTING FOOD.

GEORGE A. MOORE, of Buffalo, N. Y., opened the discussion. His experience led him to think highly of the economy and profits of cutting and steaming food for cows and sheep. His first experiment was in feeding milch cows; was feeding cut corn stalks, three bushels per day to each cow. The first week after receiving the steamed food they increased one pint of milk per head per day, and the second week one quart. The steaming apparatus then froze up and he was obliged to feed uncooked food. The milk of the cows fell off three pints per day.

Sheep liked steamed food; will eat it up clean, and were always ready for their meal. Had fed sheep two weeks on uncooked food. They increased two pounds per head per week. Other sheep on cooked food increased three pounds per week.

He steams food for a herd of sixty-four cows. Used one of Prindle's Steamers. Had conveyed the steam in a pipe one hundred feet. Steaming will make musty hay quite sweet and palatable. Cows fed on steamed food are not troubled with constipation, the hair looks sleek and the animals give every indication of full health and vigor.

Cutting fodder alone will save 20 per cent. Cooking 33 per cent. more. The manure is worth double. It is more active. His neighbors appeared to be convinced that steaming food is profitable, for they are adopting the practice. He had not weighed the food and the animals, and was not able to give accurate figures showing the actual results of steaming. This should be done, but still he was satisfied that cutting and cooking fodder was profitable. Cows fed on steamed food during the winter will give more milk when turned out to grass in the spring than those fed on dry food.

Mr. STEWART, of Erie county, said he had cut hay and straw for three years. Had seen it estimated that nineteen pounds of cut fodder was equal to twenty-five pounds uncut. In his experience fifteen or sixteen pounds of cut was equal to twenty-five pounds uncut. This when cut alone, without steaming. Cutting and steaming save 50 per cent. of the fodder. Fodder that the animals will not touch will be made sweet by steaming. Had steamed wet straw that was almost decomposed and the cattle eat it as greedily as if it had never been wet or injured. The labor of steaming

is very slight and he can use all kinds of refuse that would otherwise be wasted.

Had experimented on horses, cattle and sheep. Sheep will do better on a bushel of cut straw and two quarts of bran steamed together than on the best hay. So will cattle. After they have been fed on steamed food they will scarcely touch uncooked food.

In regard to cutting, the hay and straw should be cut as fine as possible; if cut as fine as bran it would be all the better. He cuts one-quarter inch long. Corn stalks one-eighth of an inch. They are eaten with avidity. Animals will eat the butts more readily than the leaves. One ton of corn-stalks so cut is equal to a ton of hay uncut. The object of cutting is to lessen the labor of mastication. For horses that are constantly laboring, cutting is very important. One hour for eating cut feed is worth three hours with uncut fodder.

Horses with incipient heaves when fed on steamed food will be completely cured in from one to three weeks. Had a horse with a bad cough that was cured in ten days. Steamed food will improve a horse's appearance more than fresh grass. Oats steamed thoroughly are completely digested. You will find none in the manure. All grain fed to animals should have the vital principle destroyed, and steaming will do this.

Had never weighed the animals so as to ascertain how much they increased. Had found that an animal which eats three bushels of fodder will eat only two bushels after it is steamed. In milch cows, steamed food improves the quality of the milk and the color of the butter. Carrots cut and mixed with cut straw and then steamed together makes good food. Carrots and straw about the same as bran and straw.

He agreed with Mr. MOORE in regard to the increased value of the manure by steaming. It is always ready for use. It seems to have a better effect and acts more immediately on the crop.

Mr. STEWART thought it would be easy to arrange a barn where from one hundred to two hundred cattle could be fed on steamed food. It would be best to have a steam engine that would cut the fodder, grind the grain, &c., as well as steam.

In reply to questions, Mr. STEWART said he fed the steamed food warm, but not hot. Uses Cumming's Cutter. With two horses and three hands will cut one ton of hay in an hour and a half. A bushel of straw weighs five pounds to five and a half pounds. A bushel of hay eight pounds to nine and a half pounds. Considers oat and barley straw best, wheat straw next. But much depends on the time of cutting.

The President, Hon. A. B. CONGER, hoped that some facts and figures would have been given. There are several important points which ought to be brought out. The cut feed should be wet before steaming, so much that it would heat if left for ten hours. In England steaming has been very generally abandoned, and he thought the reason was that they had not wet the food sufficiently before steaming it. Turnips and other roots contained so much water that they will cook with straw alone.

Another method of economizing food is to cut it and moisten it and let it remain till it heats and has what the chemists call an acid reaction. It is worthy of experiment whether a slight fermentation of this kind would not be just as good as steaming and more economical. The experiments of Dr. VOELCKER had shown that cold and boiling water would dissolve $5\frac{1}{2}$ per cent. of organic matter from wheat straw. If the straw, however, is treated with dilute caustic potash and afterwards with dilute sulphuric acid nearly *one-half the weight of the straw can be dissolved*. In the fermentation of straw it is well known that several organic acids are eliminated, and it is highly probable that these acids will render the cellulose or woody fibre of the straw much more digestible. The pectic acid in turnips, it was thought, acted in this way, and hence they have higher feeding value than the amount of nutritive matter they contained would of itself indicate. It is worthy of experiment how far cutting turnips and other root crops, or what would still be better, pulping and rasping them, and then mixing them with cut straw or corn stalks moistened with water and the mass allowed to ferment for a short time will increase the digestibility of the woody fibre, and whether we could not, in this way, obtain the object of steaming at a less cost. He would throw out these suggestions for the consideration of the members of the Society.

In regard to simply cutting or chaffing fodder he thought, except in the case of horses, there was comparatively little advantage in it unless it was cooked or treated in the way he had suggested.

Mr. CONGER gave an interesting description of his arrangements for steaming and feeding, but an imperfect sketch of them would be of little use to our readers. We should feel obliged if Mr. CONGER would write out a short description of them for the *Farmer*.

Hon. GEORGE GEDDES, of Onondaga, had had considerable experience in feeding cut fodder to sheep. He got an excellent machine for cutting corn stalks, driven by a four horse power. He found that sheep would eat more of the stalks when uncut than when cut. Is satisfied that stalks should not be cut for sheep. His machine has lain idle for years.

Hon. T. C. PETERS.—It is now on its way to my farm. GEDDES.—Was glad of it; did not want it any more.

Had one hundred and fifty tons of straw on his farm. Lives but four miles from the city of Syracuse, but never sold a pound of straw or hay in his life, except to a neighbor who got short in spring. Kept a large flock of sheep. He lost less money on sheep than on any other description of farm stock. Would keep no stock of any kind if he could help it. He always lost money by them. You rear a steer till he is a thousand days old, and in ordinary times he is worth \$40. You get four cents a day for your time, labor and the food consumed. Will that pay? He keeps sheep to get rid of his straw and tread it into manure. Has open sheds for his sheep and keeps the yards well littered. When snow falls he spreads straw to cover it and keeps spreading. If sheep have clover hay, straw and corn stalks, they will get fat.

LUTHER H. TUCKER, of the *Country Gentleman*, thought there were few sections in the State where straw was so abundant as on the excellent farm of Mr. GEDDES. Whether it was better to cut and steam straw, corn stalks and other fodder depended very much on location and the character of the crops. It was a question of price. In the neighborhood of large cities he thought it was advantageous. In England, cutting fodder was almost universal, but steaming was by no means general. Many farmers had given it up, though in certain localities, especially for milch cows, it was found profitable. Straw in England is more abundant than with us, and it is not so necessary to economize in its use. Most farmers in this State the present season will be short of fodder, and it is desirable to make it go as far as possible.

Prof. WETHERELL, of the *Boston Cultivator*, had investigated this matter, and come to the conclusion that cutting and steaming fodder was not profitable. Those who had adopted the practice in England had very generally abandoned it. Prof. SIMONS, Veterinary Surgeon to the Royal Agricultural Society, was quoted to the effect that cutting and steaming food was not natural or healthy. The pork of hogs fed on steamed food was flabby and less nutritious.

A farmer in the Connecticut Valley fed four pigs, two on cooked and two on uncooked food. He found no advantage from cooking. It was said that cooking made food more nutritious. He did not see how it could add anything to the food. We know that steam carries off a portion of the food in gases and vapor, but how it could add anything he did not understand. A well known breeder of horses in Maine had told him that he had given up cutting and steaming food, as he found that it impaired the vigor of the horse.

Mr. GEDDES had experimented on pigs, and was satisfied that they do better on cooked food. He found that a bushel of corn meal, made into hasty pudding, would last twice as long as a bushel wet with cold water. He does not know that the pigs fattened as rapidly, but he thought such was the case, and that half the food was saved by cooking. He always ground his oats for horses, and knew there was great advantage in so doing. A four year old horse will void a large share of his oats whole and undigested.

Prof. THURBER, of the *American Agriculturist*, made some interesting remarks in regard to the nature of the cellular matter in different plants. In plants cut green and before they had ripened their seed the cells contained more starch and sugar and the woody fibre was more digestible. In discussing the economy of steaming the nature of the food should be taken into consideration.

Mr. FAXTON, of Utica, had kept three hundred horses at one time, and he believed in grinding and cooking food. If it is good to cook food for man he did not see why it was not good for other animals. He always cut his hay and straw and ground the grain. In reply to a question he said he fed half a bushel of oats to each horse per day.

Mr. STEWART agreed with Mr. CONGER that fodder should be wet before steaming. He used from twelve

to fifteen gallons of water to fifty bushels of cut straw.

L. F. ALLEN thought that cooking food for milch cows was profitable, while it might not pay for other stock.

FINE WOOL SHEEP.

Wednesday evening was devoted to the discussion of Fine Wool Sheep. Should the Society recognize any distinctions of breed among fine wool or merino sheep, as at present bred in the United States, or should all be classified together, and regarded from identity of origin or subsequent intermixture of blood, as now belonging to one and the same breed.

Hon. HENRY S. RANDALL opened the discussion. He contended that there were three distinct breeds of Merino sheep in the United States—French, Saxon and Spanish. The latter, when derived from pure bred, Paular's or Infantados, he would denominate the Improved American Merino. It was the best fine-wooled sheep in the world. He had traced the pedigree of the Paular or Infantado sheep, in other words of the Improved American Merino, and felt sure that there was no breed of cattle or sheep whose pedigree was more distinct or certain. The English mutton sheep, with the exception of the South Down were derived from crosses, some of them dating back not more than 25 years. The Leicesters were derived from two or more crosses. The Cotswold had been obtained by crossing, and so of the Hampshire, Oxfordshire and Shropshire Downs. The Society made but one class of fine-wool sheep, while there were several classes of the English sheep. The importance of the latter was as the dust of the balance as compared with the Fine-Wools.

Hon. T. C. PETERS, who, as State Assessor, has had unusual opportunities for obtaining correct information on such a subject, said that there was only 20 per cent. of the land in this State adapted to fine wool sheep. He thought the Society ought to make no distinction between sheep that had a wrinkle more or less. Perhaps it might be well to make a distinction between Merino sheep adapted for mutton as well as wool, and those kept for wool alone. He placed Silesians in the former class, and Vermonters in the latter.

Judge PETTIBONE, of Manchester, Vt., could not agree with Dr. RANDALL. He thought there was no evidence that Paular or Infantado sheep had ever been imported into the United States. It was claimed that Atwood imported them, but the evidence offered in support of this assertion was such as no judge would allow to go to a jury. There had been considerable improvement in sheep, but where is the evidence that any such great improvement as Dr. RANDALL claimed had taken place? We got heavy fleeces. He himself had had some. Had one that weighed 15 pounds, but on cleaning it there was only 3 pounds of wool!

Dr. RANDALL was surprised to hear such statements. They had all been refuted, and this was not the place to discuss such a question.

Hon. GEO. GEDDES said the discussion had led to no good. It should never have been introduced.

L. F. ALLEN said there was great excitement in regard to wool and sheep, and the Society ought not to move in the matter at present. He had lived through

a good many fevers. Had heard of a man in Philadelphia who paid \$150 for a pair of chickens. The sheep fever will have its day, and pass over as it had in former periods. Wool might run down to 25 cents a pound.

Mr. GRINNELL, of Iowa, thought that there was good reason for the present excitement in regard to sheep. The country had imported \$75,000,000 of wool and woollen fabrics which could just as well be grown and manufactured at home. Even if wool should fall to 25 cents the farmers in Iowa could still make money on sheep. He thought, however, that for years to come, whatever might be said or thought of high tariff or no tariff, the government would be under the necessity of putting a high duty on foreign wools and woollen fabrics, and that we should obtain good prices.

The President, A. B. CONGER, said there had been complaints in regard to the Society making but one class of fine-wool sheep. This subject was introduced in order that gentlemen might come forward and substantiate their claims. If the coarse-wool men could establish their claim to different breeds, the Society wanted the fine-wool breeders, by a parity of reasoning, to establish their claim to different breeds.

A motion was made to refer the matter back to the Executive Committee, and passed unanimously.

RAISING OR BUYING MILCH COWS.

The question discussed on Thursday evening was: "Is it Best for Dairymen to Raise their Stock, or Purchase?"

Hon. L. F. ALLEN, of Erie county, opened the discussion. He said the dairyman wanted a cow that would produce the most milk, butter and cheese. Like produces like; and if you have such a cow and put her to a bull from a good milking family you are pretty sure to get a calf that will prove a good milker if it is a heifer. In his experience this is almost invariably the case. Whatever breed you have the object should be to get good milkers—would always use a thoroughbred bull. You are never safe in using any other.

Dairymen had said they could buy cows cheaper than they could raise them; but a calf for milking could be raised on one-third the milk needed for animals intended for beef. A man who has a cow to sell will always pick out the poorest. Farmers buy from the drovers, and it is rare that they do not find that some of them are poor milkers, while others are vicious, and with cheese at 7 cents per pound, the average price, a cow that will produce from 400 to 600 pounds is worth \$100. In any dairy district you can raise a two-year old heifer for \$30. The average price of hay is only \$10 per ton. In Buffalo it does not average more than that. He mentioned a case where a dairyman in Erie county paid \$150 for a Shorthorn bull of a good milking family. His neighbors laughed at him. In two years he has six heifers that gave more milk than any six cows he had. He put these heifers to the same bull, breeding in-and-in, and soon had a splendid herd of dairy cows. If he lived in a dairy section where hay was worth in ordinary times not more than \$10 per ton, he should raise his own cows.

G. A. MOORS, of Buffalo, who has for many years been extensively engaged in buying cheese, and who

has had unusual opportunities for observing the effect of different practices, besides keeping a large dairy of his own, said that he had found that those dairymen who bred their own cows always got the largest amount of cheese per cow. A cow that will not make 400 pounds of cheese per year is not worth keeping. The average in Erie county is from 200 to 300 pounds. Farmers, however, are now out of debt, and are going into breeding. In ten years we should see a great improvement in our farm stock. Small sized cows were most profitable. Beef should be no object with the dairy-farmer. His object should simply be to get a cow that would produce the most milk for fifteen years.

L. F. ALLEN, in reply to a question, said the general impression was that cows should not come in till three years old. He thought if well fed it was better to have them come in at three years old. Would not milk longer than nine months in a year.

Mr. MOORE thought if the stables were well ventilated and the cows were well fed and the currycomb used at least once a week, cows could be milked ten months as well as eight or nine. Cows should be stabled in winter, and kept warm and comfortable. Had found that cows so kept did better, and gave more milk the next summer.

Mr. LOOMIS, of Herkimer county, said there were farmers in his neighborhood who got 700 pounds of cheese from their cows, and Mr. A. L. FISH, by feeding whey and bran, got 850 pounds per cow. In order to reach this the cows must be well bred. The best cows in Herkimer county, are obtained by crossing natives with a Shorthorn bull, and their progeny with an Ayrshire bull. In raising the calves let them have milk for three weeks, and then whey and pasture. You make a better calf by feeding new milk for a longer period, but never a better milker. The heifers should come in at two years old. Those that come in at three years old are rarely good milkers. If poor and not well fed, a two-year old after having a calf is allowed to go over the next year.

In winter, feed on good hay, and four days before calving give some bruised oats and shorts. High feeding was very profitable. The cows should not be supposed to fall off in the yield of cheese. Keep them up to the standard, in case there are indications of their falling off, by feeding ground oats and shorts. In the fall they should be kept up cold nights. He thought dairymen could not obtain the best results unless they bred their own cows.

Dr. LORING, of Salem, Mass., President of the New England Agricultural Society, was present, and in reply to repeated calls said he would give a little of his experience. Some eight or nine years ago he came into possession of a farm. He found on it about forty cows of all kinds, good milkers and bad milkers. He found that cows which he purchased did not do as well as those raised on his own farm. Cows have a most delicate organization, and are affected by the slightest change. He bought some Alderney or Jersey cows. He raised fifteen, but after trying them found only one that was worth keeping. He visited one of his neighbors, who had a fine herd of dairy cows, and found that he had

been using an Ayrshire bull. This decided him to try the Ayrshires. When he had raised fifteen, he sold but two of them. All the rest were good milkers. Has now some eighty head of Ayrshires. He bred for a definite object. When this is obtained it is easy to perpetuate it. Breeding was not expensive. Cows that could not be bought for less than \$60 could be raised for \$30 or \$35. The selection of the bull was very important. A Scotchman was asked by a neighbor who had bought a bull what he thought of him. "Show me the bull's mither," he replied, "and I will tell you." The Shorthorns and Herefords had been bred for beef. If you want an animal for beef you can get it, but where can you get milkers? The Ayrshires have been bred for milk, just as the Shorthorns for beef. They have good constitutions, are very hardy, with good lungs, and good digestive organs. Will thrive where a Shorthorn will starve. Would advise dairymen to get a good bull, or two or three neighbors might join in the purchase, and you would soon have a good herd of dairy cows. Then feed them, as Mr. LOOMIS had recommended, and the results would be all that the most sanguine could desire.

L. F. ALLEN could corroborate what Dr. LORING said in regard to the effect of taking cows from other farms. Their attachment to the farm where they were bred is wonderful. Had known cows that he had sold come back and swim Niagara river to get home again! [Mr. ALLEN's farm is on an island in the Niagara River.]

A. B. CONGER agreed with Dr. LOOMIS in regard to the value of Ayrshires for milking; still he thought the Devon and Shorthorn when you had abundance of rich pasture were equally good. On rough poor land you do not want a Shorthorn or any other large cow. The question of breed was a question of soil and location.

The discussion of this subject is to be continued at the next meeting of the Society.

MANAGEMENT OF RESTIVE HORSES.

A CORRESPONDENT of the *Country Gentleman*—a Lewis county farmer—writes: "After your horse is harnessed to the carriage, procure a piece of webbing as a broad strap about ten feet long, fasten it securely around the off foot below the fetlock, then pass it up through the girths and lay the end over the dashboard; see that every thing is right, then standing on the off-side of the wagon take the strap in the right hand, proceed to get in; if the horse attempts to start pull on the strap, at the same time saying 'whoa'—the strap brings his foot up and makes it a pretty effectual 'whoa;' slack up on the strap as soon as you have stopped him, and if he attempts to start again repeat the operation. When you have got good ready to start, give the horse the word, and go along. Repeat the operation until the horse will stand perfectly quiet at the word 'whoa,' always remembering not to whip your horse, but always treat him as you would a friend, with perfect kindness, and never say 'whoa' unless you want your horse to stand perfectly still. No man should undertake to break a horse who can not control his own temper."

FARM WORK FOR OCTOBER.

HARVESTING BUCKWHEAT.—Some judgment is needed in selecting the best time, as the grains ripen successively. When cut, which should be while the dew is on, to prevent shelling, it should be placed immediately in stooks, where it will cure better than to lie in the swath, and not be in danger of becoming soiled. The stooks should be rather large, so as to stand well. A small band should be placed around the top. Thus secured, the straw dries safely and readily.

HUSKING CORN.—All the different husking machines have so far amounted to nothing, for the reason that nearly as much time is required to break the unhusked ear from the stalk as to break it out of the husks. Farmers must therefore, for the present, depend on hand husking. Some huskers will work three times as fast as others, chiefly by having every thing close at hand. While an awkward laborer is picking up a stalk, pulling off the husk and ear, and then turning around to lay the stalk in a pile, a skillfull workman will have husked half a dozen ears. The following directions, by S. E. Todd, will assist the novice :

"After the stook has been pulled down, place the basket at the butt of the stalks, a little inclined toward the husker. Procure a little box for a seat, about ten inches high. If a husker is not accommodated by resting on his knees, a low seat may be dispensed with. Let the husker place himself close to the corn, so that it will not be necessary to reach far for each stalk. Now take an ear in the left hand, and with the husker or fid on the right hand, pull down half the husks. As the right hand goes down, let the left hand rise to the tip of the ear, and slip the thumb of the left hand over the end of the ear, taking off cleanly all the silk, and bring it down with the other half of the husks. Two quick motions of the hand will husk an ear neatly. As the left hand grasps the stem, preparatory to breaking off the ear, let the husks be retained in the hand, so as to protect it from becoming tender between the thumb and forefinger, where every ear of corn strikes it, as it is separated from the stem."

The workman will of course husk a large number of stalks, until he has an armful, or rather lapful, before stopping to remove them. As it is a saving of labor to avoid rehandling the corn, the assorting should be done at the same time, by providing two baskets, one for the poor and the other for the good corn.

POTATOES.—A time should be chosen for digging these, when the soil is dry, as freedom from rotting depends greatly on having them packed away clean. If the cellar is moist, the bins for receiving them should have a grated bottom, to admit ventilation.

If dry weather can not be selected for digging them, it is best to deposit them, and spread them out for a few days upon a barn floor; during rainy weather they may be assorted, and when placed in the cellar will be less liable to rot than if taken there while wet and muddy. When potatoes are placed in out-

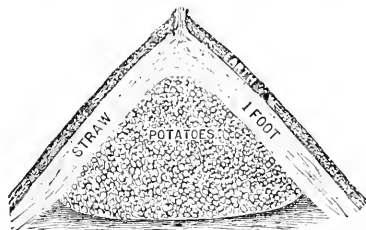


Fig. 1.—Mode of Burying Potatoes in Open Ground.

door heaps for wintering, it is important to place a straw wisp ventilator at the top, where the accumulation of foul air will otherwise cause decay. But the best way is to place the potatoes in large heaps, and cover them at least a foot thick with straw—a few inches of earth applied towards winter, and beaten smooth with a spade, will be a sufficient covering, (fig.1.) Potatoes kept in this way are not subjected to the evils of confined air and moisture, so common with a few inches of straw and a foot of earth—and after many years' experience, the loss has not been more than one per cent. from ordinary decay.

WINTER APPLES.—These should be all carefully hand-picked to prevent bruising. Light ladders should be provided, and care taken not to bruise any



Fig. 2.

portion of the tree. Baskets, provided with hooks for hanging on the limbs, is a common and good way, but a better and more expeditious one is to take a

common clean grain bag and place a stick, sharpened at each end and about a foot long, so as to prop the mouth open, leaving a triangular opening, ready for the reception of apples as fast as picked by both hands. Tie the upper and lower corner together, by placing a pebble in the lower corner, so as to form a sort of button, and then tying the bag strings closely above it. The bag is then slung over the shoulder, as shown in fig. 2. A piece of stiff leather buttoned on the shoulder serves to protect it from the weight of the bag. Portions of the tree which cannot be reached with an ordinary ladder, may be gathered by the standing ladder, (fig. 3.) Fruit on the ends



Fig. 3.

of long and tall branches may be gathered by means of the fruit picker, shown in the annexed figure, (4.) It consists of a piece of stiff wire about two feet long, with two ends thrust thro' gimlet holes in the end of a pole; a small bag, large enough to hold half a dozen apples, is then sewed to the wire. This completes the instrument. A picker of this kind is especially valuable in gathering any high priced fruit, such as pears, which would otherwise be bruised and spoiled. As some fruit, such as the autumn varieties,

must necessarily fall, the ground of orchards, or be-

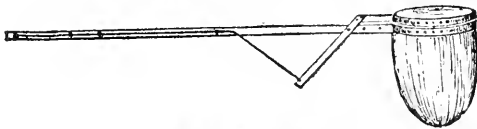


Fig. 4.—Fruit Picker.

neath trees, should always be kept smooth, and as free from stones as possible.

VINEGAR may be made from cider by adding two quarts of molasses to each barrel of cider, and exposing it to warmth, sunshine and air.

NEW CORN may be prepared for early grinding by suspending it in a coarse bag near the ceiling of any warm room where a fire is kept.

PLANTING NEW ORCHARDS.—The ground should be well prepared beforehand for new orchards, whether the trees are set out autumn or spring. Unless the soil is already quite rich enough, its fertility should be increased by manure previously applied, or to previous crops; or it may be enriched after the trees are set out, by autumn top-dressing for working under in the spring. The soil should also be well drained and subsoiled, or deeply plowed.

STUBBLE GROUND.—All stubble ground should be well harrowed to start the weeds, which may be turned under the present autumn or next spring.

PAINTING BUILDINGS.—This is the best season of the year for out door painting, when the hot sun will not dry the paint to powder, but it will form a hard, durable coat.

FATTENING ANIMALS.—The feeding of all domestic animals for fattening should be carefully and regularly continued during the present month. Regularity as to time is of great importance—the animal's appetite is an accurate chronometer, and unusual delay is certain to result in a waste of flesh. It is important to attend to all their comforts—a great secret of success with skillful managers. Especially avoid waste, dirt and surfeit. Some of the best farmers are very careful to commence foddering cattle early, or as soon as frost affects the grass—that being regarded as the most critical period in the year, and when cattle fall away most rapidly, or contract fatal diseases.—*Tucker's Annual Register.*

WORKING OXEN.

I have long found that in all heavy farming operations oxen are most useful, and am convinced every farmer with one hundred acres of arable land, could work one or two pair to great advantage; for deep plowing, oxen will draw greater weights and are as quick as horses. In lighter operations the horse surpasses them in speed, but every improvement in agriculture now tends to deep, consequently slow, work, and until steam is adapted to drawing our implements, oxen will be most useful. They cost much less to keep, and improve daily in value; they are easily broken in, may be worked for a few months during a busy season of the year and then fed off. The application of steam to our threshing machines, turnip and chaff cutters, and the railways lessening the distances at which many deliver their grain, has diminished the winter work of many farmers' horses. Oxen would, in these cases, prove very beneficial in summer. I know one large occupier who commonly buys every spring four or six pairs of working oxen, uses them until all the turnips are sown and cleaned, and then feeds them off in his stalls; and by this course has his work done at two-thirds less cost than by keeping a large number of horses. As a practical farmer, I should be very sorry to be without some oxen as auxiliaries to my horse teams.—*E. W. Wilmot, in the London Gardeners' Chronicle.*

TO CURE HAMS.—To every 16 pounds of ham take one pint of pure salt, and one ounce of saltpetre. Pack in a clean oak cask, sprinkling the salt between the layers of meat. Dissolve the saltpetre and pour it over the whole, adding sufficient pure water to cover. Soft water is best. Let them lie UNDER the brine six weeks, then smoke.

POULTRY HINTS FOR OCTOBER.

WRITTEN FOR THE GENESEE FARMER BY O. N. BEMENT.

The general management of poultry for this month differs little from the past. They may be allowed considerable liberty if they will not damage tomatoes, vineyards, &c. They will still find some insects and scattered grain, but not sufficient without other food to keep them growing. They should receive at least one meal each day of boiled potatoes mashed and mixed with wheat bran or shorts.

Chickens intended for market may now be separated from the older fowls, and confined in more restricted quarters and fed liberally with a variety of food, of which grain of some sort should form the basis. They should be regularly fed three times a day—the first time as soon after day-break as possible or convenient.

It is hopeless to attempt to fatten chickens, while they are at liberty and growing, they must be confined, and during their confinement they must be supplied with abundance of pure fresh water, gravel, old lime mortar, crushed bones, or broken clam or oyster shells if to be had. In about three weeks they will be in condition for marketing.

It is equally hopeless to attempt to fatten older fowls unless confined in a proper coop; and this, like most other appurtenances need not be expensive. To fatten a dozen adult fowls, of common size, a coop may be made, three feet long, eighteen inches deep made entirely of slats, open on all sides, top and bottom. Discretion must be used according to the size of the fowls cooped. They do not require much space; indeed, the closer the better, if they can all stand up at the same time.

Fowls selected to fatten should be in good health, one diseased fowl might contaminate the whole; besides if there are any that seem inclined to be quarrelsome they should be removed at once. Quarrelsome fowls will not fat kindly. Care must be taken to put up such as have been accustomed to be together or they will fight, and like other bad examples, it soon finds imitators.

The food should be ground oats, Indian meal mixed with water or milk; the latter is best. It should be slaked, forming a pulp or paste.

The food should be varied; barley, buckwheat and wheat-screenings, boiled or baked potatoes, form excellent fattening materials for fowls.

Regularity when fed, should always be observed in the hours of feeding, also in the quantity of food given, not to surfeit them one day and starve them the next, but give the fowls their food as regular as you take your own meals. They must be well fed three or four times a day—the first time as soon after

day break as possible or convenient, and then at intervals of four hours.

No animal is easier kept than fowls. No kind of food comes amiss to them. When at liberty they obtain their living promiscuously, and pick up every thing that can be made use of as food in the barnyard; even the worms, grubs, and bugs give them the most nutritious food. And if insectivorous food is wanted, there is nothing perhaps more easily obtained, at almost any season, than by what the French term a *verminer*. Procure a deep crock, into which put some bran and on it lay a piece of carrion or other flesh; cover it with a glass cap so as to admit light, but exclude rain; in a few days it will be a moving mass of living insects or worms, which may be thrown out to young poultry, young turkeys in particular; there is nothing they will devour more greedily; but they should be sparingly given, as the fowls are so fond of them, that if given abundantly it will prevent them taking their usual food.

We have practiced another method for fattening fowls, which has proved successful. We confined a number of fowls, ducks and turkeys in the month of November in a small dark room, only giving them light when feeding. By depriving them of light they were kept perfectly quiet; nothing to do but eat, drink and grow fat, spending most of the time quietly on the roost. Feed was kept constantly before them in a flat box, consisting of a mixture of corn, oats, barley and buck wheat, with pure fresh water supplied daily. They were also provided with broken bones, oyster shells, gravel, and pulverized charcoal of which they ate quite a large quantity.

Now that winter is approaching it would be well to cast about and see if we have suitable accommodations for the fowls. One of the greatest errors that prevails in the management of the domestic fowl, and one which must be destructive of all profit, is the too common practice of leaving them to shift for themselves during the winter months. The hen should have a warm, comfortable room to roost and lay in for there are few creatures that suffer more from the cold than fowls. They should have access to a warm yard in the sunny days of winter, as warmth is particularly invigorating to them. If confined for any length of time in a close ill-ventilated room they will become diseased and feeble, and will require extra attention to repair the evil generated.

The way in which the farmers in general manage their poultry is not the best for them or the fowls. They are allowed to run where they please, to lay and sit at any time they may deem expedient. When the hen comes off with the chickens, she is suffered to ramble about exposing the young brood to cold and wet, which thins them off rapidly; no suitable

accommodations are provided for their roosting-places, and they are allowed to find a place to roost where they can, probably in some exposed situation in a tree or shed; no attention is given to feeding them; and under such circumstances, it is not to be wondered at that few or no eggs are produced, that few or no chickens are raised, or that fowls are sickly or unprofitable.

When with so little expense to himself, a farmer may have an abundant supply of eggs and raise one or two hundred chickens, it seems strange that the poultry business should be so little attended to by the owners of the soil. Where crops are sown immediately around the barns, it may be inconvenient to have fowls run at large; but in many cases fifty or a hundred of these birds may be kept, not only without injury but with benefit. There are generally large quantities of grain scattered in the barn-yards and lost unless eaten by the fowls; there are myriads of insects, such as flies, bugs, worms, grasshoppers, etc., which require to have their numbers diminished by the cock and his followers; and if constantly kept up and fed experience shows that for the amount of capital invested, the poultry contributes, in proportion, as great a return as any part of the farm.

Now for the fowl-house. If you have room in your stable or barn, a room partitioned off these will do. Having built the partition, all the cracks should be battened up to make it warm. It should have good sized windows, front to the south, if possible, and it should be well white-washed, both for neatness and to make it lighter. Then divide it into two apartments; one to be used for the roosting-room, the other for their occupation during the day. The day room should be furnished with gravel, old lime mortar, and such other materials to assist in making the shells to their eggs. Also sand and ashes which are put into shallow boxes so that the room may not be made untidy. Or if you have a basement under your barn, partly under ground, but light, will answer a good purpose.

A poultry house need not be expensive, and yet be as good for the farmer as one with a fine finish. Of whatever shape it is better to have it too small than too large, in winter especially. For if too large the hens get together in one corner in order to keep themselves warm. While if of the right size, they can promenade as much as they please, and have the proper amount of exercise. We offer the following plan, which a handy farmer with the necessary tools can erect himself. The building is designed to be 10 feet high in front, and 4 feet in the rear, 12 feet long. The length may be greater or less according to the number of fowls to be accommodated. The above dimensions are large enough for

twenty or thirty fowls. The materials for rear and ends may be frame, brick or stone. The south slope of a bank will be a good location, as warmth is an important point to be gained. The best material for roof is straw thatch; this is warm in winter and cool in summer. If the roof is of boards, the space between the rafters should be filled in with dry tan or sawdust. That part of the building above ground should be banked up with horse manure some three or four feet high. This will prevent water from freezing—the highest temperature attained without artificial heat.

VALUE OF LAND IN ENGLAND.

LARGE estates have changed hands of late we are told, at prices which will yield an interest of not more than two per cent., while money was four or five per cent. at call. Land is, in fact, a luxury—a fancy article. The buyer purchases not land alone, but social position. He does not buy for profit. He gratifies a sentiment, the wish of a life, a motive to exertion which sweetened toil and gilded many a dull task. He takes his place among the local gentry, drives into petty sessions every market day, is impanelled on the grand jury at assizes, takes his wife and daughters to the country balls and archery *fetes*, dines with the Duke who nominates the county members, sends the largest pine apples and the green-house plants to the horticultural show. The country gentry at first looked askance. But if the new owner of Norman's Nest or Fair Oaks House is rich and hospitable, if he subscribes liberally to the hunt and sends his son to Eton and Christ-church, the country prejudice gives way; and the second and third generations, at least, have little reason to complain. There is nothing in the "Arabian Nights" more surprising than the value of land in the great centres of commerce. The little table cloth area at the south-east corner of St. Pauls which gives the foreigner the best *coup d'œil* of our architectural master-piece, is worth £60,000. The value of land around the Bank and Royal Exchange is still greater. When Oxford street was made, the land cost £57,000 an acre. In the improvement of Charlotte street the land was purchased at £67,000 an acre. When the new thoroughfare was driven through Coventry street and Long Acres the land cost £119,000 an acre. Mr. Cowper the first commissioner of works, has carried an act for the construction of a new street from Blackfriars' Bridge to the Mansion House. Having brought in a bill which gave the street a width of 70 feet, he proposed to increase it to 80 feet. The street is a very short one, but it was found the addition of 10 feet would add £100,000 to the expense, so the right honorable gentleman gave up the proposed extension. In some of

the great provincial towns, prices are still higher. In Manchester, land has been given for sites in the best part of the town. In Liverpool land has been sold at £30 per square yard, or nearly at the rate of £150,000 per acre. In Birmingham, the land held by the London and Northwestern railway was sold at about £60,000 an acre. In Belfast, Glasgow, Sheffield, Leeds, etc., the same causes are in operation. The natural progress of wealth and population tends to increase the value of land, especially in towns. The great London hospitals and schools enjoy princely revenues, not because their founders left a few hundred pounds in money, but because they bequeathed land then of little value, but now covered with house property.—*London Review.*

THE AGRICULTURE OF NEW YORK.

WE are indebted to the Hon. T. C. Peters, the State Assessor, for his Report on the Agriculture of the State. We have not yet given it that careful study to which it is entitled. The *Country Gentleman* mentions the following facts brought out in this report :

Mr. Peters calculates that of the population of the State at that date,—a little short of four millions, there were 37 per cent. living in cities, 35 per cent. in the villages, and 28 per cent. only, but little more than one-fourth, actually living in the country. This "rural population" is scattered over an area of 19,000 square miles in round numbers, giving 70 persons per square mile. Our increase of population is taking place in the cities and villages. The relative proportions of the chief crops grown were as follows:

Acres in Meadow.....	3,384,440	
Acres in Pastures.....	4,948,114	
Total acres in Grass.....		\$,822,554
Acres in Spring Wheat.....	194,346	
Acres in Winter Wheat.....	611,141	
Acres in Oats.....	1,349,384	
Acres in Rye.....	281,714	
Acres in Barley.....	212,608	
Total acres in White Straw Crops.....		2,649,193
Acres in Buckwheat.....	293,253	
Acres in Indian Corn.....	817,691	
Acres in Peas.....	48,154	
Acres in Beans.....	16,917	
Total acres in Fodder Crops.....		1,175,925
Acres in Potatoes.....	220,575	
Acres in Turnips.....	7,578	
Total acres in Root Crops.....		228,153
Acres in Flax.....	11,174	
Acres in Hops.....	9,481	
Acres in Tobacco.....	756	
Acres in Market Gardens.....	5,945	
Total acres in Commercial Crops.....		30,988
Acres not specified.....		1,240,709
Total Improved Farming Land.....		13,657,520

This statement shows that 61 per cent. of the improved land was devoted to grass, not quite 20 per cent. to white crops, and not quite 9 per cent. to fodder crops. Roots appear in very infinitesimal proportions, and notwithstanding all that is said of their value, and the satisfaction reported by many who

have tried them, it may be doubted whether they are now grown on a very much larger scale than they were ten years ago.

According to Mr. PETERS' calculations, based upon the current prices when the census was taken, the value of the above crops in gross, was as follows :

Meadow product.....		\$26,297,316
White Straw crops.....		27,184,849
Fodder crops.....		17,726,244
Root crops.....		3,896,615
Commercial crops.....		2,533,951
Orchard crops.....		1,642,552
Total.....		\$79,321,477

This represents the vegetable product of the State.

The animal products were :

Wool.....	9,231,959 pounds.	\$ 8,692,753
Butter.....	91,293,073 pounds.	18,694,961
Cheese.....	393,944,249 pounds.	3,394,424
Milk sold.....	20,965,861 gallons.	1,676,269
Swine sold over 6 months.....	539,616 head.	5,396,160
25 per cent. of sheep.....	894,256 head.	1,608,512
30 per cent. of cattle over 1 year.....	153,366 head.	3,407,929
5 per cent. of horses.....	25,000 head.	750,000
Cattle killed for beef.....	225,838 head.	4,506,760
Poultry and eggs sold.....		2,457,571

Total value of Animal products..... \$40,623,959

This would be \$6 per acre as the income for the Improved Land of the State from the crops grown, and \$3.77 per acre for the increase and sales of stock—total \$9.77; and allowing one-half for labor and cost of production, the remainder, \$4.88, would represent the interest received on the investment of capital, or at 7 per cent that the average value of the land, implements and stock, is about \$70 per acre.

These figures when subsequently examined, according to the leading object of the farm in the several groups into which the State is divided, show very conclusively one important fact, namely, that although so much is what would ordinarily be termed "mixed farming," still as a general rule, the tendency is in the grass regions to raise too little grain, and in the grain regions to raise too much. Both are deficient in any well regulated system of Rotation. The area in white straw crops—say one fifth—is probably quite as great a proportion of the land as *ought* to be devoted to this object; but the trouble is, that it is not well distributed over the State, and that the remainder of the land and the Live Stock of the farm are not so managed as to contribute as they should to the yield of grain. Our *average* is consequently not more than *one-half* the grain crop which the rest of our farmers readily obtain.

THE HORSE.—If you have the care of horses, remember that a horse is much more easily taught by gentle than by rough usage. If you use him well, he will be grateful; he will listen for, and show his pleasure at the sound of your footstep. As to his food, you should do by him as by yourself—"little and often." As for his work, begin early, and then you need not hurry. Remember it is the speed, and not the weight, that spoils many a true-hearted worker.

Ladies' Department.

WHAT SHALL WE HAVE FOR DINNER?

THE *Atlantic Monthly* has given lately a large space in its pages to the great questions of what we shall eat, what we shall wear and what kind of houses we shall inhabit, and how we shall arrange the materials after they are procured. In the September number there are none of the "House and Home Papers," in which these matters have been so well discussed, but an article with the heading "What shall we have for dinner?" takes up the question of household economy from a different point of view. The article is very pleasantly written, and we regret that we cannot give enough of it to do justice to the manner as well as the matter. The writer, after a charming introduction, enters into the midst of the subject by telling of whom his family consists and of the amount they expended in 1863. There are six grown people including servants, and ten children "old enough to eat," who count as a grown person.

"To feed it, as Lois has just now shown you, cost in the year 1863 nine hundred and twenty-six dollars and thirty-two cents. That is the way we choose to live. We could have lived just as happily on half that sum—we could have lived just as wretchedly on ten times that sum. But, however we lived, the proportions of our expense would not have varied much from what I am now to teach you, dear Hero (if that really be your name.)

"Butter is the biggest expense-item of all. Of our nine hundred and twenty-six dollars and thirty-two cents, ninety-one dollars and twenty-six cents went for butter. Remember that your butter is one-tenth part of the whole.

"Next comes flour. Our seven barrels cost us seventy dollars and eighty-three cents. We bought, besides, six dollars and seventy-six cents' worth of bread, and six dollars and seventy-one cents' worth of crackers—convenient sometimes, dear Hero. So that your wheat-flour and bread are almost a tenth of the whole.

"Next comes beef, in all forms, ninety-dollars and seventy-six cents; there goes another tenth. The other meats are, mutton, forty-seven dollars and sixty-seven cents; turkeys, chickens, etc., if you call them meat, sixty-one dollars and fifty-six cents; lamb, seventeen dollars and fifty-three cents; veal, eleven dollars and fifty-three cents; fresh pork one dollar and seventy-three cents. (This must have been for some guest.) Lois and I each had a grandfather named Enoch, and have Jewish prejudices; also, fresh pork is really the most costly article of diet, if you count in the doctor's bills. But for ham

there is ten dollars and twenty-two cents. Ham is always available, you know, Hero. For other salt pork, I recommend you to institute a father or brother, or cousin attached to you in youth, who shall carry on a model farm in the country, and kill for you a model corn-fed pig every year, see it salted with his own eyes, and send to you a half-barrel of the pork for a *gage d'amour*. It is a much more sentimental present than rosebuds, dearest Hero—and it lasts longer. That is the way we do; and salt pork, therefore, does not appear on our bills. But against such salt pork I have no Hebrew prejudice. Try it, Hero, with paper-sliced potatoes fried for breakfast.) All other forms of meat sum up only two dollars and twenty-three cents. And now, Hero, I will explain to you the philosophy of meats. You see they cost you a quarter part of what you spend."

In a very pliant way Mr. Carter, as the writer calls himself, goes on to say that the real business of the three meals a day is to supply the human frame with carbon, hydrogen, oxygen and nitrogen in organized forms.

"More nitrogen!' gasps Leander, 'more nitrogen, my charmer, or I die!' This is the real meaning of the words when he says, 'Let us have roast-beef for dinner,' or when he asks you to pass him the butter."

The calculation shows that—

"Our butter costs us one-tenth.

"Our flour and wheat-bread cost us almost one-tenth.

"Our beef costs us one-tenth.

"Our other meats cost us a tenth and a half of what we spend for eating and drinking."

But where does the rest go? This is not one-half.

"Tea and coffee, etc., one-tenth.

"Sugar and milk, one-tenth.

"Fish, eggs, potatoes, etc., one-tenth.

"Thus is it, Hero, that three-quarters of what you eat will be spent for your bread and butter, your meat, fish, eggs and potatoes, your coffee, tea, milk, and sugar—for twenty-one articles on a list of one hundred and seven. Fresh vegetables, besides those named, will take one-fifth of what is left; say five per cent. of the whole expense. The doctor will order porter or wine, when your back aches, or when Leander looks thin. Have nothing to do with them till he does order them, but reserve another five per cent. for them. The rest, Hero, it is mace, it is yeast, it is vinegar, pepper, and mustard, it is sardines, it is lobster, it is the unconsidered world of trifles which make up the visible difference between the table of high civilization and that of the Abyssinian or the Blackfoot Indian. Let us hope it is not much cream-of-tartar or saleratus. It is grits and grapes, it is lard and lemons, it is maple-sugar and melons, it is nuts and nutmeg, or any other alliteration that you fancy."

"Rich or poor, buy in as large quantities as you can. Rich or poor, pay cash. Rich or poor, do not try to do without nitrogen. Rich or poor, vary steadily the bills-of-fare. Now the minimum of what you can support life upon, at this moment, is easily told. Jeff Davis makes the calculation for you. It is quarter of a pound of salt pork a day, with four Graham hard-tack."

"A year of Jeff Davis' diet would cost you and Leander, if you bought in large quantities, sixty dollars. A year at Rye Beach just now would cost you two or three thousand dollars. Choose your dinner from either bill; vary it, by all gradations between."



AMERICAN POMOLOGICAL SOCIETY.

THE Tenth Biennial Session of this Society was held at Corinthian Hall in this city Sept. 13th, 14th and 15th. Delegates or representatives were present from Massachusetts, Connecticut, Rhode Island, New York, New Jersey, Pennsylvania, District of Columbia, Ohio, Indiana, Michigan, Illinois, Missouri and Canada West.

In consequence of feeble health, the President of the Society, the Hon. MARSHALL P. WILDER, of Dorchester, Mass., was not present.

At 12 M. Tuesday, 13th, the members were called to order by Dr. WARDER, of Cincinnati, one of the Vice-Presidents. The usual temporary committees were then appointed and the Society adjourned to meet at 3 P. M.

Collections of fruit were exhibited by Messrs. H. E. Hooker & Co., C. J. Ryan & Co., Frost & Co., Ellwanger & Barry, H. N. Langworthy and C. W. Seelye, of Rochester; Bronson, Graves and Selover, of Geneva; E. Ware Sylvester, of Lyons, N. Y.; Wm. Parry, Cinnaminson, N. J.; Dr. Trimble, of New Jersey; Rev. Mr. Knox, of Pittsburg, Pa.; the Adirondac Grape, by Mr. J. W. Bailey, of Plattsburg, N. Y.; the Iona and Israella Grapes, by Dr. C. W. Grant, of Iona, near Peekskill, N. Y.; a Seedling Grape, by Jacob Moore, of Brighton, near Rochester, N. Y.

The Pears in Ellwanger & Barry's and in Bronson, Graves & Selover's collections may be noticed as particularly fine.

Exotic Grapes from Bronson, Graves & Selover, very fine, and including several of the comparatively newer sorts.

The only Plums shown were by Ellwanger & Barry.

Mr. H. N. Langworthy exhibited finely grown specimens of Rebecca and Diana Grapes.

In Ellwanger & Barry's collection were several of the best varieties of Rogers' Hybrid Grapes.

In the collection of Grapes shown by C. W. Seelye were several rare varieties.

TUESDAY AFTERNOON.

The afternoon of Tuesday was occupied by reading reports of the various committees, reading of letters from absent officers and delegates, and a short discussion on a few varieties of Apples.

This part of the discussion will be omitted here and presented to our readers at some future time.

WEDNESDAY MORNING.

This morning the committee on nomination of officers having made their report, Hon. MARSHALL P.

WILDER was unanimously re-elected President, JAMES VICK Secretary, and THOMAS P. JAMES Treasurer. One Vice-President was also appointed for each State now having members in the Society.

In compliance with the solicitation of members, Dr. TRIMBLE, of New Jersey, delivered a very interesting and instructive lecture upon the Apple, or Codlin Moth, as it is called—the larva of which is so common in apples and pears. Without at all entering into the details of the lecture, we will only say that from the examination of the habits of this insect, and from actual experiment, the Dr. has found that a hay or straw band passed two or three times around an apple or pear tree will harbor the larva, which seeks such a place to form its cocoon, and here it may be destroyed. The bands should be examined and the larva found there destroyed twice during the season—first about the latter part of June or first of July, and again about a month later. In this manner a large proportion, if not all of the fruit now destroyed by this insect may be saved.

The Dr. had also found that the birds commonly known as the Downy Woodpecker and the Chickadee consume great quantities of these moths.

GRAPES.

The subject of Grapes was now taken up by proposing the Adirondac for consideration.

A member said that he had eaten it this season in Connecticut, and that it was ripe before Hartford Prolific.

Mr. CAMPBELL, of Delaware, O., said that he found it tender last winter.

Mr. KNOX, of Pittsburg.—It was uninjured with me; our greatest cold was 7° below zero.

Mr. SYLVESTER, Wayne Co., N. Y.—Stood last winter without injury.

Mr. HOVEY, Boston, Mass.—Uninjured on my grounds.

Mr. BAILEY, of Plattsburg, N. Y., who introduced this vine, said, in reference to its hardiness, that it was his common practice to cover all his vines, even the Concord, and therefore he had no precise knowledge of its hardiness; he had not, however, claimed extra hardiness for the Adirondac; it was as hardy as Isabella. My fruiting vines are on an open trellis, and there is nothing in the location that is particularly favorable to early ripening, and think that at many places on the Hudson further South it would ripen earlier. The season of its maturity is fully two weeks before Delaware and Concord, and a little—say a few days—before Hartford Prolific.

On being asked whether it was much subject to mildew, he replied: It is as free from mildew as any grape I have; have seen some indications of mildew on Delaware and Concord, and Hartford Prolific, but Adirondac is comparatively free. The leaves stand the sun well and hang on until the fruit is fully ripe.

CREVELING.

KNOX.—This grape is improving with me; as the vines gets older the bunches become more compact; it is a variety I think much of; it is three or four days later in ripening than Hartford Prolific.

H. E. HOOKER, Rochester.—Have seen this grape for several years; it is early, productive, hardy and good for home cultivation, but such bunches will not sell in any market; the form of the bunch is a matter of great consequence. The Adirondac that we just had under discussion is very fine in this respect. I do not think that the bunches will improve with the age of the vine; their loose form is a constitutional habit.

P. B. MEAD, New York.—I am surprised to hear any gentleman say that the Creveling will not sell in market, when Hartford Prolific will bring twenty-five cents per pound. Venture to say that any person having them for sale will get more for them in New York than for Hartford Prolific. When I left New York, Hartford Prolific was selling at twenty to twenty-five cents per pound, and Delaware from forty to sixty cents. It pays to sell at such prices, or at half such prices. We are just learning in New York what grapes are. People buy the Isabella because they know it by name; they have lately learned the name Hartford Prolific, which makes this variety sell, and if the Creveling shall become known it will supersede the Hartford Prolific.

Mr. HOOPES, Pennsylvania.—Have known Creveling for several years, and never saw such loose bunches as those now on exhibition; with us it has finely formed bunches and never drops its berries. We like it exceedingly.

Mr. BERGEN, New Jersey.—I have fruited it for the first time this year, and it is similar in appearance to those on exhibition, and would agree with Mr. HOOKER that it cannot be relied upon as a market variety.

SYLVESTER.—Have fruited Creveling two years, and find the bunches loose; notwithstanding think highly of it.

Mr. MUIR, Missouri.—Have found the leaves burned badly and the bunches are straggling. This summer the leaves stood better. It ripens between Hartford Prolific and Concord.

Dr. EDWARDS, Missouri.—I have sixty vines planted of this variety, and my experience is totally different from my friend MUIR. My residence is about sixty miles from his. It is as healthy as any vine I have.

Mr. CARPENTER, New York.—Am growing that variety, and have no sort on my grounds more promising; the leaves are very healthy and it is a strong grower.

WM. BROOKSBANK, Hindson, N. Y.—Have been familiar with the Creveling, and have seen it on Mr. DOWNING's grounds, and think highly of it.

Mr. HOVEY.—We must have good form of bunch and good quality in any new grape to make it valuable. I concur with what has been said about the loose bunch of this variety, and I also concur with Mr. HOOKER that the form of the bunch is a point of much consequence. The Creveling is a very good grape, that is, the individual berries, but among the good sorts we now have I do not think that this can be recommended.

C. S. HOAG, Lockport, N. Y.—Would inquire if the cause of the loose bunch was the dropping off of the berries.

C. W. SEELYE, Rochester, N. Y.—Have fruited this variety three or four years; it has always a loose strag-

gling bunch; the berries never drop off; the flowers are formed for a good bunch, but a large proportion of them do not fertilize.

ONTARIO.

Mr. ARNOLD,* Paris, C. W.—I consider the Ontario and the Union Village identical. I have fruited them both, having received the Union Village from Mr. DOWNING. The Ontario is a good grape for market, as people like a large one. It is a little earlier than the Isabella.

WM. SAUNDERS, Germantown, Pa.—I would inquire the use of growing either the Union Village or the Ontario.

KNOX.—I think it the most profitable grape grown; brings in Pittsburg fifty cents per pound.

MEAD.—Have grown Union Village and the so-called Ontario, and have seen them in many circumstances, and there can be no doubt that they are identical, and the name Ontario should be dropped. It is almost as good as Isabella, and if well grown can be made nearly double the size of Concord; but I do not wish to be understood as advocating large grapes for market; quality should be made the highest standard.

Mr. NELSON, Indiana.—I can raise one thousand pounds of Concord sooner than ten pounds of Union Village.

KNOX.—The particular influences of localities materially affect the habits of vines, as they do also of all other fruits, and we must not expect the testimony from widely separated districts to be uniform.

Dr. EDMONDS.—Have raised this variety under both names, and it is the same sort. In accordance with the remarks just made by Mr. KNOX I would say that there are good grapes grown in Missouri that are worthless here; it is so of Concord; here it is not fit to carry to market, while with us it is a really good grape. The Union Village is a profitable and good grape.

BERGEN.—I got Union Village and Ontario from different parties and have found it the same. I do not consider it to be as good as a well ripened Isabella, but think it promises well as a market grape.

CARPENTER.—I cannot ripen Isabella, but I ripen Union Village well.

HOVEY.—We have made some progress; last session many thought the Ontario and Union Village were not the same variety, but all the speakers now concur in their identity. It is too good a grape to be subjected to the inquiry, what is it good for? It is earlier than the Isabella, is not subject to mildew, and is found a valuable and profitable grape.

MOODY.—The merits of a grape is to determine its value in market, and I do not consider what gentlemen have said of the size of the Union Village a recommendation of it for market. I move that we drop the name Ontario and henceforth consider it as Union Village.

Motion seconded.

DOWNING.—It is one and the same thing.

CAMPBELL.—Have had an impression that the names applied to two distant varieties, but feel a hesitancy in saying so since Mr. DOWNING has expressed himself.

Think Ontario a seedling of Union Village; they are very similar, but have thought I could distinguish a difference in the forms of bunch and some of the characteristics of the leaves.

The motion to have the name Ontario dropped for Union Village was here voted upon and carried.

REBECCA.

HOVEY.—I have believed from the first that it was the finest grape in this country, and I find that it continues to win its way into favor at the East, and proves good in all parts of New England.

BROCKSBANK.—I have propagated this variety ten years, and with me it always does well. It is now perfectly ripe; is as hardy as Isabella, although I always protect my vines; I always protect Delaware. My location is considered to be the most exposed situation on the North River.

BERGEN.—I never protect my vines; last winter they were slightly injured. The fruit of the Rebecca always perfects itself, although it is more subject to drop its leaves from mildew than other sorts.

OLMSTED.—Rebecca is a good keeper; I have kept it until April.

BROCKSBANK.—It is a good bearer, and to convey an idea of this I will say that from two vines I have for several years gathered three hundred pounds per annum.

HOAG.—I find Rebecca a valuable grape; its leaves are liable to scorch somewhat, but not enough to make it an objection to growing it.

HOOVER.—Mr. LANGWORTHY has told me that it proves so good that he is prepared to say a great deal in its favor; for myself, I find it a poor grower, although it is a fine variety.

KNOX.—With me it is a good grower and hardy. I never protect it and it bears regularly a good crop.

MEAD.—I have observed how fond gentlemen are of talking about grapes that have ladies' names. This grape is Mr. HOVEY's pet. I place it high as an amateur's fruit. It should have the protection of a garden, or, if planted in the vineyard, should be at the extreme north side.

CARPENTER.—It is becoming a very valuable grape in New York, bringing seventy-five cents per pound.

MAXATAWNEY.

HOOPES.—I consider this one of the best white grapes in our section; it is not quite ripe yet; is a little later than Rebecca; is never affected with mildew.

CAMPBELL.—I have fruited it two years; last year the robins eat it all before I could test it; it is a strong grower and has about the same time of ripening as Rebecca.

BARRY.—Have not fruited it; saw it last week at Morristown, N. J., and it appeared to be ripe.

MEAD.—I cannot ripen it; can ripen Rebecca, but it will not ripen within ten or twelve days of Rebecca. As to quality, I am prepared to speak in very decided terms; I like it very much, but for the locality of New York it is too late. About Philadelphia it will probably prove a valuable variety.

SAUNDERS.—At Washington it does well; it is a very fine grape and is pretty early.

DOWNING.—It does not ripen with me; too late for my locality.

THOMAS.—It must be taken into consideration when we speak of the relative times of ripening of different varieties that two or three days difference at the South is equivalent to two or three weeks further North. In localities suited to the Catawba there is about ten days difference in ripening between that variety and Isabella, while if we go far enough North there may be ten years difference; in this locality, for instance, the Catawba will never ripen at all.

WEDNESDAY AFTERNOON.

IONA.

Dr. GRANT, the originator of this variety, being present, was called upon to make his statement in reference to it.

Dr. GRANT.—The present season is the seventh year of bearing of the original vine of Iona; it is supposed to be a seedling of Diana, as it was the seeds of that kind which were planted. It first bore in 1857. This year the fruit was sufficiently ripe to eat by the 20th of August; on the 25th it was better, and on the 1st of September it was perfectly ripe. The largest bunches will weigh one and one-half pounds; they will average from one-half to three-quarters of a pound. Iona has never been troubled with rot or mildew; its leaves and those of its companion Isabella are the healthiest of any variety I have cultivated. It is the most hardy grape we have. It is exceedingly productive. I do not know of any variety able to carry so large a crop through the season and mature it as the Iona. It is a little earlier than Delaware. I have kept it until spring, and if properly managed it will dry to raisins.

DOWNING.—I have fruited it three years and am pleased with it; if it improves the next three years, shall consider it the best grape we have.

MEAD.—I received an early vine from Dr. GRANT six years since, and I can confidently say that finer bunches have been grown elsewhere than at Iona island, although I would not wish to insinuate the least against the methods of cultivation there pursued, but I say this that gentlemen may understand that the specimens here exhibited are not above the average, but on the contrary they are not equal to what may be grown by the best of treatment. Dr. GRANT grows vines for sale and the fruit shown here is taken from the nursery rows; and now as to the characteristics of this variety: it is a good grower and ripens its wood thoroughly; not a gross grower, but short jointed; it holds its leaves well, and is as little liable to disease of the leaf as any variety I have ever grown. There is no grape in cultivation entirely free from disease, and it is all nonsense to talk about such things; but there are some varieties with so hardy constitutions as to be able, in a great measure, to repel disease. The Iona is a good, hardy, healthy vine. Now arises the question—Is it a variety that ripens its fruit sufficiently early to warrant its planting in all parts of the country? It ripens at the same time of the Delaware. Is it a good grape? I have no hesitation in saying it is. I consider it a grape only a little inferior to the Delaware, and that is in refined flavor.

ISRAELLA.

Dr. GRANT was called upon to state also the particular points of this grape.

Dr. GRANT.—The Israella was grown in similar circumstances to the Iona. It ripens earlier than any grape I am acquainted with; it is very prolific and has borne, without cessation, the last six years; is very hardy; it is much earlier than the Delaware, at least ten days; it is ripe and fit to eat before Hartford Prolific is changed; the bunches are shouldered and will average six inches in length.

DIANA.

KNOX.—Have a great admiration for Diana; it is one of the best varieties we have; the vine needs protection in winter, as it is a little tender. In a choice of five varieties Diana should be one. It is good for the table; good for wine and is a good keeper.

ARNOLD.—My experience in Canada is directly opposite to the gentleman who has just spoken—it is a poor bearer.

FIELD.—Have cultivated it six or seven years, and am greatly discouraged with it—the branches are imperfect, poorly filled—have at least twenty vines of them, and they do not produce as much as the one vine of Delaware.

BORT, of Mich.—It is an excellent grape for our climate.

Dr. GRANT.—I have cultivated it for twelve years, and excepting one year have never failed in that time of obtaining a perfect crop. On the mature vines they ripen even and thoroughly—it is an excellent wine grape, and after twelve years of experience I would place it only second to the Delaware—it is far superior to the Catawba.

SEEDLING GRAPE.

Mr. HOOKER—introduced a bunch or two of grapes, produced by Mr. MOORE, near this city, by fertilizing a native with a foreign sort, using the native as the mother's sort. He thought that the testimony that was adduced in this case in reference to the cross fertilization was such that it could not easily be doubted if gentlemen would examine it, and that the experiment of Mr. MOORE proves that hybridization may be practiced. The cross in this case was between Diana and Black Hamburgh—seed borne by the Diana.

ROGERS' HYBRIDS.

CAMPBELL.—I believe them to be hybrids—think No. 3 best, and perhaps No. 4 next.

THOMAS.—No. 9 is of the Catawba stripe. I like the flavor very much.

CAMPBELL.—I have fruited No. 9 many years, and think it inferior to many of the others.

BERGEN.—Have fruited 17 of the varieties the present year and found only one very good, which is No. 5—44 is the earliest. I have marked as the most promising the following varieties—43, 41, 13, 4, 3, 5.

CAMPBELL.—Of all the Nos. of Roger's hybrids which I have left unprotected, No. 3 is the hardest. No. 4 is next, and Nos. 5, 9 and 13 are tolerably hardy.

BERGEN.—44 is earlier than Delaware.

BARRY.—Would like to ask Mr. CAMPBELL, who has paid considerable attention to these grapes, if he could

perceive any evidence that they are hybrids—for my own part I can not discover in the leaves, wood or fruit any evidence of a foreign origin.

CAMPBELL.—Have no doubt of many of these grapes being hybrids—have planted seeds of Rogers' hybrids, and some of the seedlings appear to resemble the wild grape of Connecticut, and other foreign vines. The bunches of No. 4 resemble Black Hamburgh grown under glass, so much that a person can not tell the difference.

MOORE.—Have no doubt they are true hybrids.

HOAG.—Have fruited a large number of them this season—they are all too late for this climate.

A motion was made and carried that the Committee on Native Fruits be requested to select such of Rogers' Hybrids as they thought sufficiently worthy, and with the concurrence of Mr. ROGERS propose suitable names for them to this Society at its next meeting.

TO KALON.

KNOX.—I have not made up my mind about this sort—it has some good qualities.

Dr. GRANT.—Have fruited it fifteen years—in some circumstances it is good, and with Isabella for a standard it is worthy of cultivation, but not with the grapes we now have.

LYDIA.

CAMPBELL.—It is a good grower, but the young vines are somewhat subject to mildew.

Its habit of growth is like Isabella, and it is also like that variety as to hardiness; bunches are medium to large size; flavor equal to Rebecca, and ripens about the same time, and is more desirable than Rebecca.

FIELD.—Have grown it for two or three years past; fruit is good, but by no means first rate; better bearer than Rebecca; not good enough for general culture.

ALLEN'S HYBRID.

MEAD.—This sort has many valuable characteristics, but it is not valuable for vineyard culture; its proper place is on the amateurs' ground. It is a strong grower.

HOVEY.—Allen's Hybrid has been before the Massachusetts Horticultural Society for ten years and has been watched with great interest; it has been improving every year since it was originated, and this year it is very fine; think it may be planted wherever the Delaware or Rebecca succeeds.

DOWNING.—It is very early, the earliest grape I have, and keeps well.

Dr. GRANT.—I have fruited it five years; it is as strong a grower as Isabella; good habit in every respect; much superior to Rebecca on my grounds.

MILES.

Mr. DOWNING was asked what he knew about the Miles grape.

DOWNING.—It is early, hardy and worthy a trial.

BERGEN.—Fruited Miles this year; of over fifty native sorts I have, this is the earliest.

HOOPES.—I am pleased to say that I introduced this grape about ten years since, and am glad to find that others are fruiting it now; with us it is the earliest we have.

CUYAHOGA.

CAMPBELL.—Too late in ripening in my latitude; wants a season as long as Catawba.

MEAD.—Thought it a very nice grape when I first saw it, but after fruiting it, it proves to be quite too late to ripen.

IVE'S MADEIRA.

PRESIDENT.—Stated that this variety was introduced twenty years since, is hardy, very productive, and makes a pleasant red wine.

HARTFORD PROLIFIC.

KNOX.—Regard Hartford Prolific as the best very early variety that has yet been thoroughly tested. There are other candidates for public favor which I think will prove more valuable. Hartford Prolific ripens with me usually last of August and brings a high price in market. As far as I have seen, Hartford Prolific is free from disease and bears large crops. Last year twelve vines bore 1,236 pounds, and with me the fruit does not drop, but will hang on until it dries to a raisin.

FIELD.—Think it is a grape that suits the popular taste, and it can be produced cheaply and sold at a large price.

KNOX.—Would not recommend it to be planted largely, as there are several other grapes that follow it that are better; the Concord, for instance, is a grape which suits the public better, and more can be sold of it and at a better price than Delaware. I am not to blame for their taste. I advise all parties that want to plant a wine grape to plant Delaware.

SAUNDERS.—Concord is a fine grape at Philadelphia and much better at Washington.

Dr. EDMONDS.—Hartford Prolific is very productive and good for market, for it is early and commands a good price. Concord follows and brings a good price. Know nothing of the wine properties of Hartford Prolific. Have seen wine of Concord made at several places. Concord wine last winter was pronounced good at St. Louis. Concord and Norton's Virginia mixed, and Concord and Delaware both make very good wines. Delaware at St. Louis and at Alton failed to come up to our expectations; it was inferior to many other wines we had. Concord, I am satisfied, will make very excellent wine in our region. Clinton is one of our best wine grapes. With us the Concord is certainly the vine of the million.

MUIR.—Concord in Illinois is the grape ahead of everything else.

FIELD.—It is humiliating to find that public taste is so depraved as to consider Concord and Hartford Prolific superior to Delaware. Gentlemen from France have visited my grounds and said that the Delaware was particularly adapted to wine purposes, and that they had no grape in France superior if equal to it for this use. As for Concord I will say that a person of my acquaintance has produced a perfect imitation of sherry from pure juice of Concord, and I am somewhat familiar with sherry, having imported it genuine for my own use, and have also had other favorable opportunities of making the acquaintance of the pure article.

BERGEN.—My Concords last year rotted badly; they grew side by side with Hartford Prolific, and the Hartfords were perfect. I visited Dr. UNDERHILL'S vineyard at Crown Point and found something of the same there, not so much as my own, but enough to make me change my opinion of it.

Dr. WARDER was here called upon to say something in reference to the planting of vineyards. He stated briefly several of the methods practiced by the vine growers of the Ohio Valley, and concluded by remarking that too much care can scarcely be bestowed in the preparation of ground for vineyards. He alluded to the practice of trenching, and asked the question, Will it pay? Undoubtedly it is the best preparation in some soils that can be given a vineyard for continued productiveness and longevity, but in a country like ours, where everybody is migrating, persons do not think it well to bestow labor from which they will not receive any benefits. Thought a sufficiently good preparation could be given vineyard lands by using a double Michigan plow, which opens a furrow fifteen inches deep, and then follow it with a sub-soil plow, which stirs the soil eight inches deeper—an average tith, say, of eighteen inches. Plowing the land three times is desirable, so as to destroy all weeds and thoroughly pulverize the soil. As to manure, there need be no fear of using it; the grape is a good feeder.

KNOX.—After preparing soil I plant the vines eight feet by six; put up trellises the third year after planting, and plant between the rows three rows of strawberries. I calculate the strawberries will pay the whole expense of culture to the time of bearing. When they begin to bear I remove the strawberries. I am afraid to plow among grapevines, but use the cultivator. I place a small stake by each vine when it is planted, to which it is trained. The second year the vine is cut back and two canes are allowed to grow.

THOMAS.—Would suggest a cultivator made of narrow teeth for vineyard culture, as less liable to injure the roots.

Dr. GRANT.—The theory of cutting off the surface roots as practiced by the Germans is, that if allowed to grow the vine depends upon them for its support, and the foot roots, as they are termed, are feeble, and in the case of a drouth, when the supply of sap is cut off from the surface, the foot roots are unable to supply the unusual demand upon them; the consequence is, the vine languishes. Now it is claimed that if the soil is prepared to the proper depth, and the surface roots cut off, the vine will receive its support entirely from the foot roots, which are not subject to the charges that the surface roots are and are always able to abundantly supply the vine in all seasons.

Dr. WARDER was asked to state the method of training to stakes as practiced in Ohio.

Dr. WARDER.—The third year of the vine trained in the stake method it is supposed to have two canes, the weaker of which is cut down; the other cane is cut from two to four feet in length, and then taken and given a little twist and bent over to about a foot from the ground and tied to the cane, and then the bow is tied to the stake. The work for the spring is now

completed, and the same work is done every spring. The object of forming the bow is not only to have the vine at home snug but to make the buds break evenly. As for summer pruning, in the first place we break out all superfluous wood; there are usually two shoots from almost every bud; one of these is broken off; all suckers are removed. The Germans think that no one should go into the vineyard in time of blossoming, but by putting off pruning until this is past we lose much time and there is a great excess of wood formed in the meantime, and there is a hesitancy to remove so much. In view of these difficulties it is now becoming customary to commence summer pinching or pruning before flowering, as soon as the bunches begin to show. The consequences of summer pruning in this manner are:

1st. Large Leaves are produced opposite the fruit just where they are needed for the most perfect production of fruit.

2d. There is a development of side shoots which, in their time, must be also shortened in.

3d. Much can be done by judicious summer pruning to produce strong wood for the next season's fruiting.

THOMAS.—Think that in this country vines are planted too thickly. The Cincinnati vineyards are copied from the European. They present a very fine appearance on the hillsides as seen in that vicinity, but Catawbas there trained on trellises, present a striking contrast, the bunches being much larger and finer. Perhaps Rebecca may be trained as they are about Cincinnati.

DR. GRANT.—It matters little whether the bow or the trellis is adopted to carry out the plan of training, but the trellis is found cheaper.

FIELD.—I plant six feet by three and train on the Thornery plan three steps high, thirty inches each; this length of cane is sufficient for two buds producing bearing side shoots.

SAUNDERS.—Thornery system is a very good one.

DR. KNOX.—Think a great mystery is thrown around the subject of pruning. We have learned a great lesson about grape culture, and that is, that foreign varieties are not adapted to our country; and now we are learning another lesson, that European methods of pruning are not adapted to our varieties. The method I would propose is a very simple one: The first and second year would treat them as before mentioned; the third year I extend two arms and from them raise eight uprights; the fourth year cut out every other one and fruit the others, and the next year cut away the canes that have produced fruit and use the alternate ones grown the previous season. I modify this system by sometimes spurring the canes as occasion may require.

HOVEY.—I like the remarks of Dr. KNOX. The simple fact that the public wish to know is, that the grape only produces fruit on new wood, and if this fact becomes well known whatever system is adopted will, in a greater or less measure, be successful.

SAUNDERS.—The question has been asked, when is a grape ripe? It may be taken as a rule that a grape is not ripe unless the wood on which it grows is ripe.

THE GARDEN IN OCTOBER.

THE garden is fast losing its attractiveness, and those who are disposed to labor only while labor is attractive will begin to avoid it. But those who make gardening a business instead of a pastime will find a great deal yet to do in the garden.

Some crops are yet to be gathered; others must be protected through the winter; those sown in September are to be hoed and weeded; weeds are to be cut up in those parts of the garden from which crops have been removed, and the whole garden should receive a liberal dressing of manure, which may remain on the surface through the winter or be dug in slightly.

No; it will not do to desert the garden yet.

Asparagus should be cut down and raked off, and the bed have a heavy dressing of fine manure, to remain on the surface through the winter and be dug in in the spring.

Beans.—From present appearances, we may not have a frost to kill Limas before October. In that case many pods now green will ripen, and some not yet filled will get their growth. All should be carefully saved.

Beets.—Allow them to remain in the ground as long as safe, then pull them, cut off the tops, and pack them in boxes or barrels, mixed with dry sand or loam in the cellar.

Cabbage and Cauliflower.—Make a mellow bed in a warm place, set on a frame six inches high in front and one foot in the rear, transplant the plants four inches each way, and cover the frame with boards, and bank up around with dirt. Give air in pleasant days. The present crop is better to remain until next month before lifting.

Carrots should be gathered the last of the month and treated the same as beets.

Celery should still be earthed up and kept clean.

Onions sown or planted last month should be hoed and weeded this month.

Parsnips.—Such as are required for winter use should be pulled before the ground freezes, and preserved the same as beets. The balance should remain in the ground until spring.

Spinach.—Thin to three or four inches, hoe and weed.

Turnips are better to remain in the ground as long as possible and avoid freezing.

SMALL FRUITS.

Strawberries.—Keep clean and apply a little fine manure.

Raspberries.—Most varieties need a little protection, and all will fruit better another year for it. Make a hillock near the canes so that they will not break in bending, bend them to the ground and cover slightly with earth.

Grapes should be picked when fully ripe, handled carefully, all defective ones cut out with scissors, and any surplus preserved by packing in a tight box with paper between each layer.

P. C. R.

WHENEVER you see a caterpillar's cocoon in your orchard, pull it off the tree and trample on it. If above your reach, use a light pole.

HORTICULTURAL DEPARTMENT AT NEW YORK STATE FAIR.

THIS part of the exhibition was particularly attractive. The flowers and fruits were displayed under an immense tent, eighty feet by one hundred and forty feet. A row of tables next the canvass, entirely devoted to fruit, encircled the area; another table at a uniform distance of about twenty feet from the other, entirely around, was covered with flowers neatly arranged in order, and in the oval space surrounded by this flower table, were arranged in groups about the masts of the tent fine specimens of the rarer greenhouse and store plants. A railing of the height of the tables, placed about two feet from them on each side of the walk, served to protect the tempting products here displayed from the curious, itching fingers of the admiring crowd of visitors. These railings were prettily decorated with boughs of Norway Spruce, and a medium sized Spruce tree stood sentinel at every post. The *tout ensemble* of Floral Hall was very pleasing, and as we examined more closely we found that the effect of the whole had not been produced by detracting in the least from the most orderly arrangement of the different parts. In every case, articles competing with each other for the same premium were arranged together, side by side, so that at a glance the particular merits of rival specimens could be compared. The superintendence of this department was performed by Mr. James Vick, and we congratulate the Society in having received the services of a person who carried into the execution of his duties so much skill and judgment. The pressing, eager crowd that thronged this tent each day of the fair from morning to night fully attested the keen appreciation of the beautiful and the deep interest of our people in the subject of horticulture.

On the flower table we noticed fine collections of cut flowers, annuals and perennials from Ellwanger & Barry and Jas. Vick, of this city, from Mrs. J. T. Van Namee, of Pottstown, Mrs. H. E. Lamb, of Fulton, Dr. William Newcomb, Johnsonville.

A collection of dahlias by C. J. Ryan & Co., Rochester, were particularly noticeable; also a collection by R. J. Donnelly, of Greece, near this city.

Messrs. Ellwanger & Barry, H. E. Hooker & Co., and Frost & Co., were the principal exhibitors of roses.

A collection of perennial phloxes exhibited by Ellwanger & Barry were very fine.

Smaller collections by Dr. Wm. Newcomb, Mrs. J. T. Van Namee and Mrs. H. E. Lamb were quite praiseworthy.

In the way of ten-week stocks and asters Mr. Vick's collections far surpassed all others and contained, undoubtedly, the greatest variety and best grown specimens of these interesting flowers ever shown by this Society.

Collections of pansies exhibited by Mrs. H. E. Lamb and Mrs. Van Namee were quite fair.

Pot plants shown by Ellwanger & Barry, Frost & Co. and C. J. Ryan & Co. were well grown specimens of fine varieties of plants, but we did not notice anything very new.

The best table and hand bouquets were from Ellwanger & Barry, Bronson, Graves & Selover, of Geneva, C. J. Ryan & Co. and Mrs. J. T. Van Namee.

A collection of seedling verbenas by John Charlton, Rochester, contained quite a number of first class flowers and are quite worthy of dissemination.

The fruit tables showed as the principal exhibitors of apples Ellwanger & Barry, R. J. Donnelly, C. J. Ryan & Co., Bronson, Graves & Selover, E. W. Sylvester, of Lyons, R. H. Brown, Greece, A. Wilder, Greece, Sherman Cobb, Albany. On the whole apples were not as large nor as fair as usually shown, although these collections contained many fine specimens.

PEARS.—In this line the largest shown were by Ellwanger & Barry, Bronson, Graves & Selover and E. W. Sylvester. Smaller collections by Wm. Macknery, Rochester, G. W. Lawrence, Oswego, Wm. G. Watson, Rochester, and Edward Dagge, Rochester, were fair, handsome specimens and of good size.

PLUMS.—The only plums shown were by G. W. Lawrence, of Oswego, who had thirteen varieties, good specimens, and one variety by Bronson, Graves & Selover.

PEACHES.—E. W. Sylvester, of Lyons, showed six varieties of peaches. N. Culver, of Newark, one dish of White Imperial and one basket of Lemon Cling, very large and fair, but brought in too late to receive the attention of the judges.

GRAPES.—This branch was the glory of the fruit department and occupied nearly as much space as all the rest. So large a show of this attractive fruit of so many and so good varieties had probably never before been seen in the country, and the interest that now exists in the community in regard to this fruit manifested itself here by the constant attendance of visitors, feasting with their eyes and eagerly asking questions about the particular varieties; indeed it appeared as if apples and pears had been almost forgotten. The largest collections of native grapes were made by Ellwanger & Barry and C. W. Seelye, of Rochester. Frost & Co. had a fine collection of twenty-seven varieties; C. J. Ryan & Co., fifteen varieties; Bronson, Graves & Selover, eleven varieties; Hammondsport Wine Co., a fine collection; A. S. Moss, Fredonia, twenty varieties; F. C. Brehm, Waterloo, a good collection of beautifully grown specimens.

Of exotic varieties Bronson, Graves & Selover had an excellent collection of well grown specimens, among which were such comparatively newer sorts as Lady Dowry, Bowood Muscat, Muscat Hamburg and Golden Hamburg. Daniel Wettlin, gardener to Aaron Erickson, of this city, presented also a very fine collection both of foreign and native varieties. Gideon Granger, Canandaigua, some large specimens of Black Hamburg, but not so well colored as some of the others. Mr. Bailey, of Plattsburg, was present with the Adirondac, which won for itself many expressions of admiration. F. C. Brehm showed the Iona, grown at Waterloo; it was universally regarded with the highest satisfaction, and we bespeak for this grape a high place in the list of the best sorts. Mr. Brehm had also the Israella which, by its good quality and excellent habits, will

undoubtedly soon supersede the third rate Hartford Prolific, whose great recommendation is its earliness; Israella ripens at the time or a little earlier than Hartford Prolific.

The largest and best specimens of Delaware we ever saw were upon Mr. Brehm's table.

The best Catawbas were by the Hammondsport Wine Co. and A. S. Moss, of Fredonia, finely colored and good samples.

Bronson, Graves & Selover showed Allen's Hybrid very fine.

Dr. Grant showed Iona and Israella and distributed them to visitors.

QUINCES.—Of these only a few were shown.

MELONS.—A very fair show of good specimens.

In the above remarks we have not pretended to notice everything, and it is quite likely that even articles of some merit may have been overlooked, but we have designed to mention the more important features.

THE DROUTH AND ITS TEACHINGS.

EDS. GENESEE FARMER: That "it is an ill wind that blows nobody any good" is true and trite. Drouths, doubtless, have an effect to enrich the soil by promoting the absorption of fertilizing gases and by bringing up the mineral elements of plants from below by capillary attraction, and, to an extent, giving the land rest. Nor is this all; we learn at such times much of the benefits of deep, thorough and clean culture, and frequent manipulations of the soil, and he is not wise who does not profit by these lessons.

The soil around me for miles is all sandy. Some call it a light sand, but it grows heavier by working; and there is much otherwheres that is lighter. There is a slight covering of organic matter on the surface when new (as most of it is), but below that it is the same for four feet in depth; below that lighter in color and texture. Some think that such a soil will leach all the manure you put on it, and that all its natural fertility will go down below the reach of plants; and many would think that a soil so light and porous would not need much working, it being already too light and mellow; but facts are too stubborn to admit it.

In the spring of 1861 I took out the stumps and grubs from twenty rods of new ground for an addition to my garden, and planted it with grape vines, manuring the surface slightly before plowing, and digging the holes two and one-half feet deep by about three in diameter, and putting in the bottom ashes, bones, old boots and shoes, and other rubbish; and planted the intervals with garden vegetables. All grew and prospered; and in the fall of the same year, before the grape roots got beyond the original holes, I trenched the ground two and one-half feet deep, putting in three light courses of manure, all of it at least a foot below the surface. It has been planted to vegetables the three past seasons, with a slight sprinkling of manure on the surface, worked twice each season with a cultivator and hoed often, but not plowed nor spaded. Vegetation on it has been most luxuriant, and though we have had a drouth each year in June this has never suffered.

This season, with us, has been the dryest I ever knew anywhere; only one moderate shower (1st July) between the 1st of June and the 1st of September. Seeds planted in May and June did not vegetate till the July shower. Ordinary field crops are a failure. About the middle of July I received from my friend Lamport, of Canandaigua, N. Y., some turnip seed of new varieties, issued from the Patent Office. The surface of my graperly for an inch or two was so dry that in making a drill the sand would roll back like shot, but I did the best I could, and after dropping the seed I poured on it a stream of water back and forth to the amount of two gallons to a rod, and sprinkled over the surface a light coat of road scrapings. The water caused the seed to vegetate, which it otherwise would not have done. The turnips have grown most luxuriantly, and though the bottoms are not much yet, many of the leaves are thirty inches long. Melons on this ground have been green all summer and borne well, and tomatoes have shown no signs of drouth, though never watered, while those a few rods distant, planted on ground spaded fourteen inches and often watered, are puny and sickly from drouth.

S. B. P.

Muskegon, Mich., Sept., 1864.

BLIGHT IN APPLE TREES.

S. EDWARDS TODD, of Auburn, N. Y., writes as follows to the *Country Gentleman*:

The apple tree blight has recently made its appearance in this locality, and it destroys portions of young apple trees in a very rapid manner. The limbs—the wood and not the leaves—are first attacked, and a portion of it a few inches long, becomes withered, dried, and dead as a dry dead stick during the day; and still the leaves and the wood above the blight will be alive, and show no signs of withering for a day or more, when they both die, and appear as if they had been exposed to an intense heat. It is quite different from anything that we have ever before witnessed.

From the above description we should judge that this disease is similar to the "pear blight." We have known two or three cases where apple trees were affected in this way. It was on ground that had formerly been occupied as a nursery, and the roots of the nursery trees left in the soil were partially decayed and covered with fungus. Pear trees in the same garden were badly affected. We should feel obliged if Mr. Todd would ascertain whether the soil on which these apple trees are blighted does not contain old roots or other decaying woody matter that produces fungus.

M. DELAVILLE says he has discovered a simple remedy for the destruction of the Woolly Aphis, or what is called in Europe the American Blight. He had some pear trees badly affected, and "armed himself with a hard brush provided with a handle, and with this and boiling water he set to work to scrub and wash the poor besieged trees; then with a sharp pruning knife, having cut away the woody tumors caused by the puncture of the insects, many others which had taken refuge about them were brought to light, and these were speedily removed by a second washing similar to the first, with water kept boiling for the purpose of a lighted stove. This completely destroyed them; for since then no more have appeared, while the trees have continued to shoot and produce as before, unaffected in health by so powerful a remedy."

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PREMIUMS! PREMIUMS! PREMIUMS!

To those who are willing to aid us in increasing the circulation of the *Genesee Farmer* at this time we offer the following premiums:

1. To any person sending us one new subscriber during the present month at one dollar a year we will send pre-paid by return mail a copy of the *Rural Annual and Horticultural Directory* for 1860.
2. To any person sending us three subscribers at one dollar each we will send pre-paid by return mail a copy of *Miner's Domestic Poultry Book*.
3. To any person sending us five subscribers at one dollar each we will send pre-paid by return mail a copy of *Emerson & Fend's Manual of Agriculture*, or, if preferred, a copy of *Rodgers' Scientific Agriculture*.
4. To any person sending us six subscribers at one dollar each we will send pre-paid by return mail a copy of *Everybody's Lawyer*, or the *Horse and his Diseases*.
5. To any person sending us eight subscribers at one dollar each we will send pre-paid by return mail a complete set of the *Rural Annual and Horticultural Directory*—nine volumes.
6. To any person sending us twenty-five subscribers at one dollar each we will send pre-paid by express a complete set of the bound volumes of the *Genesee Farmer* for the years 1859-60-61-62-63.

As an inducement to subscribe at this time we shall send the three last numbers of the *Genesee Farmer* for this year, together with the whole of the next volume, to all who subscribe during the present month.

The Canada Fair.

THE Great Provincial Fair of Upper Canada was held at Hamilton, September 27-30. We were unable to attend, but learn from a gentleman who was present that the Exhibition of stock, implements, seeds, vegetables, fruits, flowers, &c., was remarkably fine. The show of Leicester sheep was magnificent, there being no fewer than 230 entries of this favorite Canadian breed! Merino sheep he says are attracting more attention in Canada, although at present fine wool brings no more than Leicester wool.

The Shorthorn cattle imported a week or two ago by Hon. David Christie, of Paris, attracted much attention. He speaks of them as splendid animals.

He was told that the show of horses was very fine, but, as at our own Fair, they were shut up in tight boxes and could not be seen. There was a fine show of pigs, consisting principally of Yorkshire and Large Berkshire among the large breeds, and Suffolks and Improved Berkshires among the small breeds.

There was a splendid show of wheat. For the Canada Company's prize of \$100 for the best 25 bushels of white wheat there were 17 entries; and for the prize for the best two bushels of white winter wheat over 40 entries. He understood that the midge had proved unusually destructive the past season in Canada, and this with low prices has a depressing effect on the farming community. Many are beginning to fear that the cultivation of winter wheat will have to be abandoned.

There was, as is always the case at the Canada Fairs, a grand display of vegetables. We have nothing equal to it on this side. In the cultivation of mangold wurzel, Swede turnips, &c., the Canadian farmers are altogether ahead of us.

There was a very spirited plowing match on Tuesday. Joseph Hall, of Oshawa, had offered one of his Ohio Reaping and Mowing Machines as the First Prize. Second Prize, \$40. Third Prize, \$30, and Fourth Prize, \$20. There were over fifty plowmen who competed for the Prizes. They were required to plow at least six inches deep, and not more than an inch of underent was allowed. Nearly all the plows used were wholly constructed of iron. There were only three or four wooden ones in the field. The plowing was excellent,—straight, neat furrows well packed, and the grass all covered. To accomplish the latter many of the plows had a clipper for cutting off a narrow strip of the turf before the coulter, while others used a short chain running in the furrow. In Canada they plow much narrower furrows than with us, and consequently do not get over the ground so fast. The time allowed to plow one-sixth of an acre was two hours, or at the rate of an acre per day of twelve hours. This we should regard as slow work, but many of the plowmen failed to finish their land in the time allowed.

Agents Wanted.

We want an agent in every town of the Loyal States and Canada to get subscribers to the *Genesee Farmer*. Showbills, premium lists, &c., sent to all who desire them. Write to us at once.

The Markets.

THERE is so little doing and prices are so unsettled that we omit our usual market report. It is hardly possible to fix quotations.

Last month we quoted gold at 235, and the month before at 260. It is now 190. The decline in gold has affected the price of all our leading staples. But prices have declined far more than gold. This is owing to the great stringency in the money market.

In this city white wheat brings \$2.00 per bushel; red \$1.50@ \$1.75. Barley \$1.75@ \$2.00. Corn \$1.40@ \$1.50. Oats 70@ 75c. Beans \$1.50@ \$1.75. Potatoes \$1.00@ \$1.25. Hay \$20.00@ \$21.00 per ton. Turnips 50c.

Pork still maintains its price. There is none in market. It cannot be bought for less than 22 cents per pound or \$45.00 per barrel.

Wool is out of the market. There are no buyers and no sellers. It is quoted nominally at about 60 cents.

Farmers should hold on to their produce. The crops are everywhere deficient and the present depression in prices will probably be temporary. Our armies have achieved splendid victories, but it is hardly probable that we shall have peace immediately, and it would seem that the present panic in commercial and financial circles can hardly be of long continuance.

Bound Volumes of the Genesee Farmer.

WE have not yet advanced the price of the bound volumes of the *Genesee Farmer*. We will send a complete set of the last five years, 1859-60-61-62-63, to any address by express on receipt of \$5 00. Single volumes, of any year, will be sent pre-paid by mail for \$1 25.

We need hardly say that at the present price of paper these volumes could not be printed and bound for what we sell them for. They were printed when paper was one-third its present price, and hence we can afford to sell them at the above low rate. If there is any reader of the *Farmer* who has not this set of bound volumes he should not neglect this opportunity to secure them. They will make a handsome addition to his library, and no farmer should be without them.

The Rural Annual and Horticultural Directory.

THIS work was established in 1856, and a new number is issued at the commencement of each year. The volume for 1865 will be out in good season and will be found, it is believed, no less interesting and useful than its predecessors.

In this connection we would say that a complete set of the work can still be furnished from the commencement at twenty-five cents each. A complete set of nine volumes, for 1856-7-8-9-60-61-62-63-64, will be sent, postage paid, by mail, to any address for \$2 00. Every reader of the *Genesee Farmer* should have this set of the *Rural Annual*. Send for it at once.

THE Boston *Cultivator* says: "The ram that took the first premium at the N. Y. State Fair was valued at eight thousand dollars." Is it possible!

A Word to Every Reader of the Genesee Farmer.

LAST fall and winter many of our readers consented to act as agents in getting subscribers. The consequence was that our circulation nearly doubled. *We want it doubled again* this coming year, and now is the time to do it.

Will not every reader of the *Genesee Farmer* get us one new subscriber the present month? We send the October, November and December numbers of this year free to all who subscribe at this time for next year. *Tell this to your neighbors*, and ask them to let you send their names for the next volume.

It is not much trouble to ask a few of your friends to take the *Genesee Farmer*, still it is some trouble, and then you have to write a letter and mail it. The letter need be a very short one. Such for instance, as follows:

"Send Genesee Farmer for 1865 to
John Smith,
Smithville,
Columbia Co.,
Ohio.

I enclose one dollar. He wants the three last numbers of this year. I shall try and get more subscribers. Send me a showbill and subscription list."

Now, as we have said, this is some trouble; and as a token of our appreciation of his kindness we will send a copy of the *Rural Annual and Horticultural Directory* for 1860 to every subscriber of the *Farmer* who will, during the present month, send us one new subscriber for 1865. We will send such the three last numbers of this year and the whole volume for 1865. The copy of the *Rural Annual* will be sent at once pre-paid by mail. Be sure to give your own name and address as well as that of the new subscriber.

The Genesee Farmer in Canada.

TILL further notice we will send the *Genesee Farmer* to Canada for fifty cents a year, Canada money. We shall pre-pay the American postage without extra charge, and all who subscribe during the present month will receive the October, November and December numbers of this year free.

We would ask every reader of the *Farmer* in Canada to get us one new subscriber at this time. To those who do so we will send pre-paid by mail a copy of the *Rural Annual and Horticultural Directory* for 1860, and for larger lists the premiums offered above. The *Farmer* has many old friends in Canada and we should esteem it a particular favor if they would make a special effort at this time to increase its circulation among their neighbors.

To Young Farmers.

WE would ask every farmer's son who reads the *Genesee Farmer* to act as agents for it. For five subscribers at this time we will send a copy of the *Manual of Agriculture*, a handsome book that should be read by every young farmer in the country. There are few young men who, by speaking to their friends and neighbors, could not get five subscribers to the *Farmer*. The book will be sent post-paid by return mail.

Notes on the Weather from August 15th to
September 15th, 1861.

The hot period of two months closed on the 15th of August, the heat having been from three to six degrees above the general average. The heat of the last half was about the average, 67.2°, and of the month was 70.9°, or 2.3° above the general average. The highest heat was 85° on the 16th and 25th, and the lowest heat was on the 31st, 48°, indicating the approach of autumn. The hottest day was the 25th, 77.3°, and the coldest was the 30th, 55.7°.

Rain in the last half was 3.31 inches, and in the month 5.49, a very large quantity for August in this section. The influence on the autumnal crops has been great and good, and the weather has been pleasant. The barometer has been below the mean.

A great rain fell in this section south of us on the 16th and 17th, which did much damage along the Erie Railroad, and raised the Genesee very rapidly on the 18th; very little rain fell here.

September has given us a pleasant fortnight. The mean temperature was 60.9°, and 3° below the general average. The highest heat was 79° on the noon of the 10th; but the hottest day was the 9th, being 67.3°. The first morning was 48°, and the coldest day, the 15th, 56.7°. For the prosecution of business the season has been fine, and the harvests in autumn are fast coming to the desired maturity. The rain of this half month is small; but the earth is not dry after the great rains of the last month, even though the dust flies some in the wind. The season is less favorable to health than is usual.

MR. HARRIS—DEAR SIR: I presented the last number of the *Farmer* to a friend of mine and requested him to look over the "Walks and Talks on the Farm." Before he got to the end of the notes he said: "I will give you a dollar. Please send at once for the *Farmer*." Inclosed find one dollar; so please send on the paper, and oblige your friend,
ROBT. B. CLARK.

Thanks, Mr. CLARK. Glad you like the "Walks and Talks." The *Farmer* shall be sent at once; and we wish there were a thousand more of our readers who would also call the attention of their friends to the fact that those who subscribe to the *Farmer* at this time will receive the last three numbers of this year free.

Inquiries and Answers.

BOGGY MARSH.—Can some one of the many readers of the *Farmer* give me some information as to what is the best course to take with a boggy marsh to get it to Red-top and Timothy grass, so that I can cut it with a mower? and is there any way of cutting the bogs save by hand labor? The marsh is very dry, so I can go on it any time with a horse team, but very boggy. I would also like to inquire which is the best and lightest draft junior mower and the most durable. I want a light one.—H. C., *Johnstown, Barry Co., Mich.*

MARKET GARDEN.—Please tell me, through your valuable paper, how to manage a truck garden to raise the greatest crops. What kind of manure is best, and what kind of soil, and how situated? Should the ground be made ready in the fall?—G. MARTIN, *Chester Co., Pa.*

Will some of our readers who have had experience answer the above?

Masses, Editors: Have you ever seen a hedge made from the Honey Locust or the Barberrry? if so, was it a good, substantial fence, and where could the seed be obtained, and what would it cost, and how should it be prepared?—A. WINTERS, *Dunder, N. Y.*

No Club Rates.

As long as paper maintains its present price we are unable to make any reduction in the subscription price of the *Farmer* to clubs. One dollar a year is the lowest rate at which the *Farmer* can now be published. Our friends, we are sure, would agree with us if they had to pay our paper bills—and at present there is no prospect of paper being lower. The manufacturers say it will be higher.

ADVERTISEMENTS.

A few short advertisements of interest to farmers—and only such—will be inserted in the GENESEE FARMER at twenty-five cents a line, or \$2.50 per square, or \$25 per column, each insertion, payable in advance.

THE GENESEE FARMER:

A MONTHLY JOURNAL OF AGRICULTURE AND HORTICULTURE.

Published at Rochester, N. Y., by

JOSEPH HARRIS.

Terms—INVARIABLELY IN ADVANCE—One Dollar a year.



THE CELEBRATED CRAIG MICROSCOPE.—Combining Instruction with Amusement is mailed, prepaid, for \$2.50; or with 6 beautiful Mounted Objects for \$3.25; with 24 Objects, \$5.50, by HENRY CRAIG, 150 Centre street, New York. Also, he will mail, prepaid, the Novelty Magnifying Glass, for examining Living Insects, Seeds, Flowers, &c., for \$1.50; or with 12 beautiful Mounted Objects for \$3.

CHERRY PLANTS.—Of the Bell, Cherry and Bugle varieties. Send for Circular giving mode of culture, price, &c. Also, manufacturer of Grafting Wax and Tree Varnish for cuts and bruises on trees. A sure protection from Weather, and will heal sound wood. The Wax is also valuable for sealing Fruit Bottles. For sale by oct6t F. TROWBRIDGE, Milford, Cona.

OUR PATENT HOG CATCHER.—Saves much disagreeable labor in catching and handling hogs. Retails for \$1, three for \$2.50, twelve for \$9. Sent by express on receipt of price, or C. O. D. Circulars sent. oct1t* GOLDSMITH & GREGORY, Goshen, Orange Co., N. Y.

MICHIGAN LAND FOR SALE.—Five Hundred Acres, unimproved Land (except 25 in mowing) three miles from Hastings, the County Seat of Barry county. Will exchange for farm at the East. Address oct1t DINSMORE & CO., 26 Cedar street, New York.

\$2 MADE FROM 20 CENTS!—Call and examine, or ten samples sent free by mail for 20 cents. Retails for \$2 by R. L. WOLCOTT, 170 Chatham Square, N. Y. my'64-ly

OVER 1,000,000

HAWTHORN HEDGE PLANTS two and three years old.—2 years \$10, 3 years \$12 per 1000. Apply to oct1t* W. M. BEAUCHAMP, Skaneateles, N. Y.

WINE PLANTS

FOR MAKING THE

TURKISH RHUBARB WINE.

HAVING grown this plant extensively, and having direct business communications with importers, I am prepared to furnish the roots in such quantities as may suit purchasers. Also, the WINE. Agents wanted. Address. H. B. BAILEY, oct3t Andover, Ct.

FARM FOR SALE.

A GOOD FARM of 110 acres, near the village of Van Etten, in Chemung county, N. Y., 14 miles from Havana. It is good land, but as I can not attend to it myself, I will sell it for \$25 per acre. Only one-third of the purchase money need be paid down. The remainder can lie any length of time that is desired. JOSEPH HARRIS, Rochester, N. Y.

PINE HILL NURSERY.

THE undersigned respectfully solicits the attention of Planters to his large stock of well-grown

FRUIT TREES.

APPLES—Standard and Dwarf.
PEARS—Standard and Dwarf.
CHERRIES—Standard and Dwarf.
Plums, Peaches, Quinces, &c., &c.

HARDY GRAPE VINES.

All the leading best varieties.
Also, SHADE and ORNAMENTAL TREES, all at moderate prices.

Price List sent on application.
sep2t GODFREY ZIMMERMAN, near Buffalo, N. Y.

NEW PUBLICATIONS.

TO TOBACCO GROWERS.

TOBACCO CULTURE

Adapted to Northern Sections of the United States, and the most improved method of managing a crop to fit it for market. Second edition revised, just published and for sale by CHAS. W. CORNELL, 19 S. Salina street, Syracuse, N. Y. Single copies 25 cents. Mailed free upon receipt of price to my address.

Orders from the trade solicited, to whom a liberal discount will be made. oct1t

AMMONIATED PACIFIC GUANO.

A REAL GUANO, containing from seventy to eighty per cent. of Phosphate of Lime, to which has been added by a chemical process a large percentage of Ammonia, so fixed that it can not evaporate, making it equal if not superior, to any other fertilizer.

Price, \$80 per nett tun. A liberal discount to the trade.
Pamphlets, with copies of analysis by Dr. Jackson, Massachusetts State Assayer, and Dr. Liebig, of Baltimore, and testimonials from Scientific Agriculturists, showing its value, can be obtained from J. O. BAKER & CO., Selling Agents, 181 Pearl street, New York. oct6t

McELWAIN BROS.,

DEALERS IN ALL KINDS OF

FIELD, VEGETABLE AND FLOWER SEEDS, AT WHOLESALE AND RETAIL.

Particular attention given to sending Vegetable and Flower Seeds by mail. For particulars send for a Catalogue. Springfield, Mass. 1t

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DEALER IN

GARDEN, VEGETABLE AND FLOWER SEEDS,

Roses, Flowering Shrubs & Greenhouse Plants, sep SPRINGFIELD, MASS.

BLOOMINGTON NURSERY,

BLOOMINGTON, ILL.

13th Year. 220 Acres.

FRUIT, ORNAMENTAL & NURSERY STOCK.

A very general and reliable assortment, cheap for cash.
Catalogues sent on receipt of two red stamps. sep2t F. K. PHENIX, Bloomington, Ill.

FRANCIS BRILL,

Nurseryman & Seed Grower, NEWARK, N. J.

STRAWBERRY PLANTS A SPECIALTY.

Fruit Trees, Vines, Shrubs, Garden Seeds, &c. Catalogues on application. septif

SWEET POTATO PLANTS,

[Price \$2.25 per thousand.]

OF THE LEBANON YELLOW OR NANSEMOND variety. These plants will be packed in boxes of five and ten thousand each, so as to travel with safety ten days. Grown by F. A. SCHWILL & BRO., Cincinnati, Ohio. sep2t

Trees for Sale.

THE subscriber would respectfully announce that he has on hand for sale a large and very desirable lot of

NURSERY STOCK

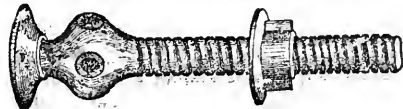
in general assortment. In particular he would invite the attention of purchasers to the following:

STANDARD AND DWARF PEARS—Of very superior quality.

GRAPES—Including the new and more rare kinds—the Delaware, Adirondac, Iona, Rogers' Hybrids, Allen's Hybrids, &c. **ORNAMENTAL TREES**—Particularly EVERGREENS, in large supply, very choice. All for sale on reasonable terms.

Catalogues sent free to all applicants who enclose stamp for repayment of postage. oct1t W. BROWN SMITH, Proprietor of the Syracuse Nurseries.

CIDER MILL SCREW.



PRICE, \$12.00.

We are making the Cheapest and Best Cider Mill Screw in the World. Whole length, 4 feet; length of thread, 3 1/2 feet; diameter of screw, 4 inches; weight, including nut, 125 lbs. Also, Pumps of all kinds for farmers' use. Address S. F. P. & F. E. Co. J. A. RUMSEY, Treasurer, Seneca Falls, N. Y. oct1t

FRUIT AND ORNAMENTAL TREES.

TEN ACRES OF STRAWBERRIES—Of the most desirable kinds—such as French, Russell, Fillmore, Trioumpe de Gand, Bartlett, Albany, Austin, Cutter, Downer and Lady Finger. **TEN ACRES OF BLACKBERRIES**—Dorchester and New Rochelle.

FIVE ACRES OF RASPBERRIES—Including the PHILADELPHIA, the best and most productive hardy Raspberry. It has yielded with me over two hundred bushels per acre of large, red, luscious fruit without protection from sun or frost. Send for Catalogues gratis. sep8t WILLIAM PARRY, Cinnaminson, N. J.

STAMMERING.

STAMMERING—Cured by Bates Appliances. For Descriptive Pamphlet, &c., address H. C. L. MEARS & CO., 277 W. 23d street, New York. oct6t

FARMERS, ATTENTION!

DO NOT purchase a Mower or Reaper for the season of 1885 until you see "THE IMPROVED CUYUGA CHIEF MOWER AND REAPER," and "Improved Cuyuga Chief Junior Mower," as manufactured ONLY by BALBER, SHELDON & CO., Auburn, N. Y. Circulars, with full description, &c., furnished on application, or forwarded by mail. oct2t

WESTERN APPLES.

A LARGE STOCK of thrifty, well-grown Trees, comprising many fine sorts of Western origin, and especially suited for Western culture, together with full assortment of nursery stock, at wholesale and retail. A. G. HANFORD & BRO., Columbus Nursery, Columbus, Ohio. sep2t

THE BOWEN MICROSCOPE!

MAGNIFYING 500 TIMES—MAILED EVERYWHERE FOR 50 CENTS. THREE FOR \$1. Address F. H. BOWEN, Box 220, Boston, Mass. oct3t*

GRAPES.

DELAWARE, Concord, Hartford Prolific, Rogers' Hybrid, and other fine Grapes, on their own roots and of splendid growth. A. G. HANFORD & BRO., Columbus Nursery, Columbus, Ohio. sep2t

OSAGE ORANGE.

100,000 FINE one-year old plants. A. G. HANFORD & BRO., Columbus Nursery, Columbus, Ohio. sep2t

ROSES.

A LARGE and fine stock of the most beautiful varieties Hybrid Perpetual, Bourbon, Tea, Moss, &c., principally on their own roots. A. G. HANFORD & BRO., Columbus, Ohio. sep2t

Adirondac Grapevines.

1 year No. 1, very strong, \$3--No. 2, strong, \$2
2 year No. 1, very strong, \$5--No. 2, strong, \$4

ALL cut back from 3 to 5 eyes. No inferior vines will be sent out by me. Purchasers can rely on the quality of my vines being unsurpassed. Will be forwarded in scaled boxes by express, without charge for the boxes. Small orders will be securely packed and sent by mail, postpaid, when so ordered.

The two great Grape Exhibitions held last autumn in New York and Cleveland, awarded to the Adirondac the prize for the "Best Native Grape of any Kind, Quality to Rule,"

The discovery and introduction of the Adirondac is an event of the highest importance to grape growers, and the greatest advance yet made in native grapes. Its peculiarities are

EXTREME EARLINESS,

Large clusters and berries, tender and thin skin, melting without any perceptible pulp, and of the most delicious and delicate flavor, reminding one of that splendid hot-house grape, the "Black Hamburg."

Also First-Class Vines

of the following varieties, at the lowest rates, viz:

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| ALLEN'S HYBRID, | GRIZZLY FRONTIGNAN, |
| DELAWARE, | CONCORD, |
| ISRAELLA, | HARTFORD PROLIFIC, |
| REBECCA, | NORTHERN MUSCADINE, |
| TO KALON, | CUYAHOGA, |
| CREVELING, | IONA, |
| DIANA, | ONTARIO, |
| MAXTAWNEY, | SHERMAN, |
| ROGER'S HYBRIDS, No. 1, 3, 15, | YEDDO, |
| 19 and 33. | |

A liberal discount allowed to Nurserymen and Dealers.

Price Lists will be forwarded on application. Address

JOHN W. BAILEY,
Plattsburgh, N. Y.

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Grapevines! Grapevines!

TWO HUNDRED THOUSAND GRAPEVINES,

(Native and Foreign.) comprising all the new and leading—also all the old and well-proved varieties worthy of cultivation, grown in open air, healthy and vigorous, and well adapted to either garden or vineyard culture.

Also, a good stock of the

CHOICEST VARIETIES

of CURRANTS, RASPBERRIES and STRAWBERRIES, MYRTLE'S LINNEUS RHUBARB and GIANT ASPARAGUS. Also, a

Fine Collection of Roses,

of the choicest varieties. FLOWERING and other SHRUBS, SCOTCH ELMS, WILLOWS, &c., for sale at Utica Union Nurseries, at prices as low as those of any other reliable establishment.

TERMS CASH.

Send for Wholesale Price List.

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JOHN BEST, Agent, Utica, N. Y.

True Delaware Grapevines.

FROM THE ORIGINAL VINE.

BEST QUALITY OF PLANTS

AT LOW PRICES.

ALSO, strong vines of Allen's White Hybrid, Adirondac, Anna, Creveling, Concord, Clinton, Cuyahoga, Clara, Casady, Diana, Golden Clinton, Hartford Prolific, Iona, Israella, Lydia, Lincoln, Lenoir, Logan, Maxtawney, Ontario, Rebecca, Roger's New Hybrid, Taylor, ToKalon, Union Village, Underhill's Seedling, &c.

Also, Downing's Mulberry, Currants, Raspberries, Strawberries, &c.

Send for Descriptive Price List to

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GEO. W. CAMPBELL, Delaware, Ohio.

CONCORD GRAPE VINES.

A VERY LARGE STOCK of the above at low rates by the hundred or thousand. All the leading varieties can be furnished, including Rogers' Hybrids, Adirondac, Iona, Israella, &c. &c.

FRUIT AND ORNAMENTAL TREES, SHRUBS, ROSES, &c.

Address

sep21

WM. ADAIR, Detroit, Mich.

IMPORTANT ANNOUNCEMENT.

To Breeders, Farmers & Ag. Societies.

Moreton Lodge, Guelph, C. W.

MR. W. S. G. KNOWLES begs to announce that he has received instructions from FREDERICK WM. STONE, of Moreton Lodge, Guelph, Canada West, to SELL AT AUCTION, On Wednesday, the 12th day of October next, about twenty head of very superior pure bred

SHORTHORNS,

consisting of Bulls, Cows and Heifers that have been bred from animals of high repute, several of which have been awarded FIRST PRIZES in their classes at the Provincial Exhibitions.

Also, a few young HEREFORD BULLS, of great promise.

About forty grand COTSWOLD, Shearing, and older Rams.

Fifteen superior SOUTHDOWN RAMS.

A few fine pure bred LEICESTER RAMS.

Also, several pairs each of pure bred

Cotswold, Southdown and Leicester Ewes, and fifty pure bred

BERKSHIRE PIGS,

(bred from first-class imported animals) of various ages.

Catalogues with pedigrees and other particulars will be ready for issue by the first of October, and may be had on application to Mr. KNOWLES, or of Mr. F. W. STONE, Guelph, C. W.

Guelph, Canada West, September 15, 1864.

Pure Sheep Wash Tobacco.

I HEREBY certify that I have been familiar with all the processes employed by the South Down Company in the manufacture of their "Sheep Wash Tobacco," and that the article prepared under Mr. Jaques' Patent contains all the useful principles of the Tobacco in a concentrated form.

This Paste, employed as a Sheep Wash, according to the directions furnished by the Company, has the effect of curing Scab and other cutaneous diseases, and destroying all parasitic insects which infect the skin and wool of the Sheep, and thereby improves the health of the animal, as well as the quality of its fleece. Employed in the same way, the solution being made stronger, it will destroy those insects which infest the skins of larger animals, and also those that are injurious to vegetation.

CHARLES T. JACKSON, M. D.,

Assayer to the State of Massachusetts, and Consulting Chemist.

Wool Growers should beware of any preparation that contains "sulphur," as it is sure to destroy the fibre of the wool. One pound of EXTRACT TOBACCO will make twelve gallons Wash, and contains the strength of eight pounds of Tobacco, as prepared by farmers.

Agents wanted in every Wool District.

JAMES F. LEVIN, Agent South Down Co.,
23 Central Wharf, Boston.

AGENTS.—DUDLEY & STAFFORD, 69 Beekman st., New York; R. H. ALLEN & Co., 189 and 191 Water st., New York; E. W. HARRISON & Co., Comstock's Landing, N. Y.; ELIAS FOOT, BATAVIA, N. Y.; WM. SIMPSON, JR., New Hudson, Allegany county, N. Y.; A. M. WRIGHTMAN, Bath, N. Y.; STODDARD & BARTON, Troy, N. Y.; NICHOLSON, FAINE & Co., Albion, N. Y.; LAW & PAINE, Rochester, N. Y. oct21

Central Nurseries, York, Penn.

We would call attention to our annually fine assortment of **FRUIT AND ORNAMENTAL TREES, SHRUBS, VINES, &c.,**

for the coming season. We would especially direct attention to our superior stock of

SHADE AND ORNAMENTAL TREES,

suitable for street and lawn planting, and

Ornamental Shrubs and Vines.

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sep21

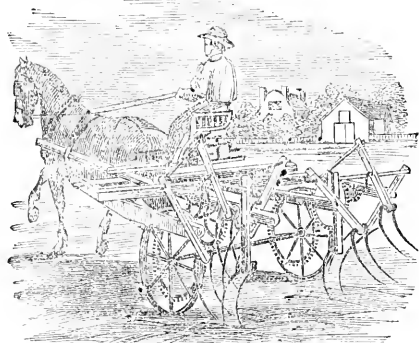
York, Penn.

ROSE HILL NURSERY,

Lyons, Clinton County, Iowa.

THE leading object of this Nursery is the Propagation of the Grape, Kosea, Shrubs, raising of Evergreens, and most everything belonging to the trade at retail and wholesale. Terms Cash. sep21 M. DEGLEFF, Proprietor.

BULLARD'S IMPROVED



PATENT HAY TEDDER,
Or Machine for Spreading and Turning Hay.

THE subscriber having purchased the exclusive right for manufacturing and selling (for the State of New York)

Bullard's Improved Hay Tedder,

now proposes to furnish the Farmers to the extent of his ability, which must necessarily be limited the coming year, owing to the difficulty of obtaining good and competent mechanics.

Those who desire to avail themselves of one of these great labor-saving machines will please send in their orders early to be recorded in turn. "First come, first served." Address

SILAS C. HERRING, New York.

N. B.—Pamphlets and Circulars will be sent by mail to those who request them.

P. R. BARTON, Rochester, N. Y., Agent. ap'64-1y

Hardy Bulbs for Fall Planting.

My Illustrated Annual Catalogue of HARDY DUTCH & OTHER FLOWERING BULBS

AND

GUIDE TO THE FLOWER GARDEN

Is now in press, and will be ready to send out early in September. It consists of full and plain descriptions of the finest

- HYACINTHS,
- CROCUSES,
- TULIPS,
- SNOW DROPS,
- CROWN IMPERIALS,
- LILIES, &c., &c., &c.

with ample directions for Planting and Culture. My Catalogue this season is beautifully illustrated, containing, among other fine illustrations, TWO FULL PAGE ENGRAVINGS, and one beautiful COLORED PLATE of the

JAPAN LILY.

sent free of postage by mail to all who apply enclosing 10 cents. Catalogues always sent to my customers of the previous year as soon as issued without ordering.

My importations from Holland the present season have never been equalled for extent, variety and excellence.

sep2t **JAMES VICK, Rochester, N. Y.**



THE KEDDIE FILTER.—This Filter possesses every practical and scientific arrangement for the objects intended, viz: rendering the most impure rain and river water free from all decomposed organic matters and gases, color, taste or smell. Pure water is the chief conservator of the human system, and can be surely obtained by using this, the best portable Filter known. They are durable, convenient and cheap; can be transported in safety any distance and are sure to give satisfaction.

Manufactured by

JAMES TERRY & CO., Rochester, N. Y.

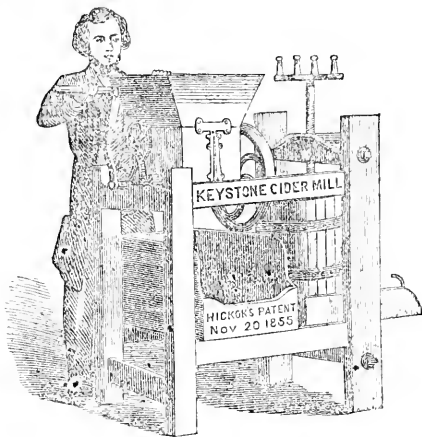
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White or Hedge Willow for Sale.

CUTTINGS of this superior live fence plant, of suitable length, at \$1 per 100 or \$5 per 1000. Warranted true SALIX ALBA. D. S. HEFFRON, Utica, N. Y.

THE CHAMPION.

HICKOK'S PATENT PORTABLE KEYSTONE CIDER AND WINE MILL.



10,000 in Use and Approved.

THIS admirable machine is now ready for the fruit harvest of 1864. It is, if possible, made better than ever before, and well worthy the attention of all farmers wanting such machines.

It has no superior in the market, and is the only mill that will properly grind grapes. For sale by all respectable dealers.

On account of the very heavy excise tax on spirits, there will be a large demand for good Cider, (which is, by the way, the most healthy beverage there is, especially for those afflicted with liver complaints,) and every one having apples will make them up into good Cider, if they would study their interests. I intend having good receipts for making Cider printed and distributed among dealers, for the use of those purchasing mills.

If your merchant does not keep them, tell him to send for one for you, or write to the manufacturer yourself. Address the manufacturer,

W. O. HICKOK, Eagle Works, Harrisburgh, Pa. an3t

HALE'S EARLY PEACH.

THIS fine early variety is rapidly growing in popularity with market orchardists. It is proving to be the best very early Peach in cultivation, ripening full seven to ten days before Troth's Early and Serrate Early York, hitherto the most popular very early sorts.

Hale's Early was originated in Portage county, Ohio, by a German who claimed to have brought the seed from the old country, and was first introduced to notice by Mr. Hale, a nurseryman of Summit county, who called it Hale's Early German. Subsequently the "German" was dropped.

In the spring of 1859 it was sent out from the Columbus Nursery. Prior to this it had been placed in the hands of a few amateurs and others for trial, and had been moderately disseminated in the vicinity where it originated.

It is a white fleshed freestone peach, above medium size, color greenish yellow, with deep carmine cheek, fruit always fair, very juicy, with a rich virgious flavor and delightful fragrance.

The tree is a remarkably handsome, vigorous grower, hardy and healthy. The blossom buds also seem harder than most other sorts.

sep2t **A. G. HANFORD & BRO., Columbus, Ohio.**

HOUSES FOR ALL.—Large and thriving settlement of Ellwood, 35 miles from Philadelphia by railroad. Good soil, good water, fine crops—best fruit section in the Union. Farm lands \$20 per acre, one-quarter cash, balance on bond and mortgage. Good society, churches, schools, mills, &c. To visit the lands, leave Vine street wharf, Philadelphia, 7 A. M., 9 A. M., 2 P. M., 4 P. M.

For full information and paper, apply to **R. F. DANFORTH,** Ellwood, Atlantic Co., New Jersey. au3t

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THE BULL HOTSPUR 4080 A. H. B. by Duke of Gloster (H352) dam Daphne (imported) by Harold (19299), rich roan, calved May 15, 1860. Also three YEARLING BULLS and five BULL CALVES, mostly by Hotspur, and a few HEIFERS.

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GEORGE BAKER respectfully invites the attention of Nurserymen and Dealers to his large and unusually fine, stocky and well-branched

Fruit and Ornamental Trees, Shrubs, Roses, Grape Vines, &c.,

consisting in part of

- 200,000 STANDARD APPLE TREES—3 and 4 years old, very fine.
- 10,000 DWARF APPLE TREES—3 and 4 years old, very fine.
- 10,000 STANDARD PEAR TREES—2 and 3 years old, very fine.
- 30,000 DWARF PEAR TREES—2 and 3 years old, very fine.
- GRAPE VINES—Catawba, Clinton, Delaware and Concord.
- CURRENTS—Cherry, Red and White Dutch.
- GOOSEBERRIES—Houghton's Seedling.
- EVERGREENS—A large and fine Stock of NORWAY SPRUCE, 3 to 6 feet;

SCOTCH AND AUSTRIAN PINE, 3 to 5 feet.

Our assortment is complete, which enables us to fill dealers' orders.

Wholesale Price List sent on receipt of stamp.

a3t

GEO. BAKER, Toledo, Ohio.

BUY THE BEST



The Railway Horse-Power Awarded
FIRST PREMIUM

At the New York State Fairs of 1860 and 1862

AND

Ohio State Fair, 1863,

As it also has at every State and County Fair at which the Proprietors have exhibited it in competition with others, running with low elevation and slow travel of team.

COMBINED THRESHERS AND CLEANERS,

Threshers, Separators. Wood Saws, &c.

All of the best in market. The

THRESHER AND CLEANER

Also received the FIRST PREMIUM at the Ohio State Fair, 1863, runs easy, separates the grain clean from the straw, cleans quite equal to the best of Fanning Mills, leaving the grain fit for mill or market.

For Price and Description send for Circulars, and satisfy yourself before purchasing. Address

R. & M. HARDER,
apcomtf Cobleskill, Schoharie county, N. Y.

NEW ILLUSTRATED CATALOGUE

ROCHESTER CENTRAL NURSERIES.

SEND FOR A CATALOGUE

AND

SPECIAL TERMS OF SALE,

AND

ORDER YOUR TREES DIRECT.

Address C. W. SEELYE,
aptf Rochester Central Nurseries, Rochester, N. Y.

TO FARMERS!

BRADLEY'S TOBACCO FERTILIZER, AND BRADLEY'S X L Superphosphate of Lime, are for sale at wholesale and retail by the Manufacturer, WM. L. BRADLEY: Sales Office 24 Broad street, Boston.

Pamphlets containing testimonials in favor of his Tobacco Fertilizer, Bradley's X L Manure on the Culture and Curing of Tobacco, with Illustrations, can be had by addressing the undersigned, WM. L. BRADLEY, my

Highest Cash prices paid for Bones.

HALE'S EARLY PEACH

RIPENS TEN DAYS before Troth's and Serrate Early York Tree very hardy. Also, full assortment of leading market varieties. A. G. HANFORD & BRO., Columbus Nursery, Columbus, Ohio.

sep2t

Schenectady Agricultural Works.

G. WESTINGHOUSE & CO.

PROPRIETORS AND MANUFACTURERS OF

- Improved Lever and Endless Chain Horse Powers,
- Combined Threshers and Cleaners,
- Threshers and Separators,
- Glover Machines,
- Circulars and Cross-cut Wood Sawing Machines,
- Dog Powers for Churning, &c., &c.

Send for a Circular containing description and prices of the above-named machines.

Particular attention is invited to our new

Thresher and Cleaner

with RIDDLE SEPARATOR. This machine was introduced last season with great success, and we believe is not equaled by any in use. We also would invite notice to our

Improved Wood Sawing Machines,

both Circular and Cross-cut, which are complete in every respect. Address all communications to

G. WESTINGHOUSE & CO.,

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AGENTS WANTED
SALARY \$50. PER MONTH
OR COMMISSION ON SALES
FOR CIRCULARS AND SPECIMENS ADDRESS
L. L. TODD & Co.
68 WILLIAM ST. N. Y.

FROST & CO.,

GENESEE VALLEY NURSERIES,

Rochester, N. Y.

Parties who desire to purchase first quality

STANDARD OR DWARF FRUIT TREES,

Small Fruits, Ornamental Trees, Shrubs, Plants, &c., &c.

in large or small quantities, are solicited to inform themselves of our Stock and Prices.

Our Nursery contains nearly FOUR HUNDRED ACRES, which enables us to fill orders even of the most extensive character, while particular attention is given to orders amounting to small sums.

Our stock will be supplied at the most favorable rates. The following Catalogues, with prices, are furnished on application upon receipt of five cents for each:

No. 1 and 2—Descriptive Priced Retail Catalogue of Fruits, Ornamental Trees, Plants, &c.

No. 4—Wholesale Priced Catalogue of Fruits, Ornamental Trees, &c., for Nurserymen, Dealers and others, who may wish to buy in large quantities for the Autumn of 1864. Address

sep2t

FROST & CO., Rochester, N. Y.

U. S. 7-30 LOAN.

The Secretary of the Treasury gives notice that subscriptions will be received for Coupon Treasury Notes, payable three years from August 15th, 1864, with semi-annual interest at the rate of seven and three-tenths per cent. per annum—principal and interest both to be paid in lawful money.

These notes will be convertible at the option of the holder at maturity, into six per cent. gold bearing bonds, payable not less than five nor more than twenty years from their date, as the Government may elect. They will be issued in denominations of \$50, \$100, \$500, \$1,000 and \$5,000, and all subscriptions must be for fifty dollars or some multiple of fifty dollars.

The notes will be transmitted to the owners free of transportation charges as soon after the receipt of the original Certificates of Deposit as they can be prepared.

As the notes draw interest from August 15, persons making deposits subsequent to that date must pay the interest accrued from date of note to date of deposit.

Parties depositing twenty-five thousand dollars and upwards for these notes at any one time will be allowed a commission of one-quarter of one per cent.

Special Advantages of this Loan.

It is a NATIONAL SAVINGS BANK, offering a higher rate of interest than any other, and the *best security*. Any savings bank which pays its depositors in U. S. Notes, considers that it is paying in the best circulating medium in the country, and it *can not* pay in anything better, for its own assets are either in government securities or in notes or bonds payable in government paper.

It is equally convenient as a temporary or permanent investment. The notes can always be sold for within a fraction of their face and accumulated interest, and are the best security with banks as collaterals for discounts.

Convertible into a 6 per cent. 5-20 Gold Bond.

In addition to the very liberal interest on the notes for three years, this privilege of conversion is now worth about three per cent. per annum, for the current rate for 5-20 Bonds is not less than *nine per cent. premium*, and before the war the premium on six per cent. U. S. stocks was over twenty per cent. It will be seen that the actual profit on this loan, at the present market rate, is not less than ten per cent. per annum.

Its Exemption from State or Municipal Taxation.

But aside from all the advantages we have enumerated, a special Act of Congress *exempts all bonds and Treasury Notes from local taxation*. On the average, this exemption is worth about two per cent. per annum, according to the rate of taxation in various parts of the country.

It is believed that no securities offer so great inducements to lenders as those issued by the government. In all other forms of indebtedness, the faith or ability of private parties, or stock companies, or separate communities, only, is pledged for payment, while the whole property of the country is held to secure the discharge of all the obligations of the United States.

While the government offers the most liberal terms for its loans, it believes that the very strongest appeal will be to the loyalty and patriotism of the people.

Up to the 24th of September, the subscriptions to this loan amounted to over

\$40,000,000.

SUBSCRIPTIONS WILL BE RECEIVED by the Treasurer of the United States at Washington, the several Assistant Treasurers and designated Depositories, and by the First National Bank of Buffalo, N. Y., First National Bank of Albany, N. Y., and by all National Banks.

All Respectable Banks and Bankers throughout the country will give further information and afford **EVERY FACILITY TO SUBSCRIBERS.**

Dutch Bulbous Roots.

J. M. THORBURN & CO.,

15 John Street, New York,

Have the pleasure to offer their usual assortment of **IMPORTED BULBS**. They are large, sound and true to name, unlike those generally sold in *cases*. They are the first selection of **FIRST CLASS BULBS**, obtained in Holland the present summer, in addition to

Hyacinths,

Tulips,

Polyanthus Narcissus,

Crocus,

Crown Imperials,

Fritillarias,

Oxalis,

Ixias,

Lachenalias,

Lilies,

Arums and

Jonquilles.

We have a splendid collection of

FRENCH HYBRID GLADIOLUS,

which will be offered after the first frost. Also

White Rose and Red Japan Lilies.

BEAUTIFUL COLLECTIONS OF

BULBOUS ROOTS.

No. 1.—ASSORTMENTS OF

- | | | |
|---|---|------|
| 6 Fine Named Double and Single Hyacinths, for pots, glasses or open border..... | } | \$3. |
| 1 Polyanthus Narcissus..... | | |
| 3 Double Tulips..... | | |
| 12 Fine Mixed Crocus..... | | |
| 1 Bulbocodium Vernum..... | | |

No. 2.—ASSORTMENTS OF

- | | | |
|---|---|------|
| 9 Fine Named Double and Single Hyacinths, for pots, glasses or open border..... | } | \$8. |
| 6 Fine Double Tulips..... | | |
| 15 Beautiful Named Early Tulips..... | | |
| 25 Fine Mixed Crocus..... | | |
| 3 Polyanthus Narcissus..... | | |
| 6 Double Narcissus..... | | |
| 3 Bulbocodium Vernum..... | | |
| 3 Persian Iris..... | | |
| 12 Double Snowdrops..... | | |

No. 3.—ASSORTMENTS OF

- | | | |
|--|---|-------|
| 18 Fine Named Double and Single Hyacinths, for pots, glasses or open border..... | } | \$15. |
| 50 Fine Mixed Crocus..... | | |
| 24 Beautiful Named Early Tulips..... | | |
| 12 Fine Named Early Tulips..... | | |
| 4 Polyanthus Narcissus..... | | |
| 12 Double Narcissus..... | | |
| 3 Persian Iris..... | | |
| 3 English Iris..... | | |
| 1 Crimson Crown Imperial..... | | |
| 6 Bulbocodium Vernum..... | | |
| 25 Double Snowdrops..... | | |

Priced Catalogues, containing directions for cultivation, mailed on application to

J. M. THORBURN & CO., Seedsmen,

15 John Street, New York.

☞ Splendid Prize Hollyhock Seed, 10 cts. per paper. 11

THOMAS WRIGHT, COMMISSION TREE BROKER,

35 Reynolds' Arcade, Rochester, New York.

TREES, PLANTS AND TREE SEEDS,

Of all the Various and Choice Kinds, Bought or Sold on Commission, Wholesale or Retail.

Send for Wright's Wholesale Price List.

ROUND AND SQUARE GRAPE BOXES,

Various Patterns and beautifully made, at the shortest notice and on 1st* Lowest Rates.

GRAPE VINES BY MAIL—Or by Express, including both old and new varieties. For circular, prices, &c., address
oc2t H. B. LUM, Sandusky, Ohio.

THE
Genesee Farmer
PRACTICAL AND SCIENTIFIC FARMERS OWN PAPER

VOL. XXV. SECOND SERIES. ROCHESTER, N. Y., NOVEMBER, 1864.

No. 11.

WALKS AND TALKS ON THE FARM.—NO. 11.

SCIENTIFIC farming is all very well ; but it must be confessed that a man may have a good theoretical knowledge of agriculture, and yet make a very poor farmer. Order, system, personal attention to details, with steady, persistent industry, will enable a farmer to succeed without the slightest acquaintance with science, while on the other hand the most thorough scientific education will be of little use to the man who has not these qualities.

If a man who has had the advantage of a scientific agricultural education turns farmer, he will be pretty sure to make mistakes which will subject him to the ridicule of his neighbors. He may be the most quiet of men, be entirely occupied with his own affairs, interfering in no way with those of others—but no matter ; those of his neighbors who have less to think about will be sure to talk over all that he does, and their comments will not generally be of a complimentary kind. He may feel that this is uncharitable ; but he is not much of a man if he is annoyed by it. Let him keep on the even tenor of his way. He will make many mistakes, but if he is a sensible man he will soon rectify them. Correct agricultural knowledge, even if it is simply theoretical, will in the end prove of great advantage to him. If he has the energy, patience, industry, prudence, forethought, and the enterprise necessary to make a good farmer, his scientific acquaintance with agriculture will inevitably enable him to succeed better than those who are destitute of it. But he must not be too sanguine. Agriculture is slow work. A farm can not be brought into order and a high state of cultivation in a year. It is the labor of a life.

The scientific man who thinks that he can take a farm and raise large crops by the use of a few chemical manures, is doomed to disappointment. He will be very apt to neglect those little details of farm economy which are absolutely essential to success. While he is thinking of acids and alkalies, of nitrogen and phosphates, his cattle will knock down a fence and be eating up his crops. While he is studying

Leibig, his men will be taking a *siesta* in the hay field. Careless hands will soon break his improved implements. He may think to economize food by cooking it, but without constant surveillance his men will waste more in a day than he can save in a week. They will take pleasure in thwarting all his pet plans, and will harrass and perplex him in every conceivable way. The end is disappointment and disgust.

But it is only the mere dabbler in science that expects to revolutionize agriculture. The true scientific man has moderate expectations. He does not know, and never expects to know, how to transmute iron into gold, or to raise a hundred bushels of wheat per acre as easily as we now raise ten. If any discovery he can make, if any modification of present practices will increase the productiveness of the soil five bushels per acre, he knows that he would be one of the greatest benefactors of his race. Such an increase in the wheat and corn crops of the United States would in a few years pay off our national debt.

No ; deride science who may, its judicious application to American agriculture is the great want of the nation. So far as material prosperity is concerned, and our ability to carry on the war and pay our enormous debt, an improved system of agriculture is of the first importance. We *must* farm better. We can pay our debts, but our ability to do so will be in proportion to the increase in our agricultural products. We have one of the finest countries in the world—one of vast extent and of great natural fertility. But this alone will give the Government no revenue. Labor is the true source of wealth, and anything which economizes labor, and makes it more productive, adds to our national prosperity ; and this is the aim of scientific agriculture. It will give us a beeve at two years old as large and as fat as an ordinary four-year old. It will make one acre produce as much as three. Instead of the average hay crop of this State being half a tun per acre, we should have two tuns. I wish every farmer in the Loyal States could at this time see the importance of straining every nerve to raise larger crops. The

longer the war goes on, the more it will be dependent on the farmers of the country; and when it is over the debt must be paid from the soil.

The Strap-leaf Turnip is certainly a splendid variety to sow late in the season, after early potatoes, &c. I sowed them this year at different times in August. The first sown are now (October 11) quite large. George brought in one this morning that was twenty-two inches in circumference. I had the greatest difficulty in persuading the Dutch women to hoe them thin enough. They could not be persuaded to cut them out more than four or five inches apart, and in a week after I made them go over them again and take out every other one. It is a great mistake to leave them too thick—and it is certainly very absurd to leave them without hoeing. One great advantage in raising turnips is that they require good culture. This they must have; it is useless to try to raise them without; but if the land is in good condition, and the turnips are singled out and the land well hoed, there is no crop which grows so rapidly or which will please the farmer so much. Next to underdraining, raising a good crop of turnips is one of the most fascinating employments connected with farming.

Farmers have but few pleasures, and they may be allowed a hobby or two to ride occasionally without subjecting themselves to the criticism of their neighbors. Hobby riding, however, is seldom profitable, and every farmer—and especially every young farmer—should guard against it. When I was a boy I used to eat the crust of the pie first and leave the fruit, which I liked best, to the last. I wish I always acted in the same way in more important matters—to do first those things in which I have no special interest. Of all men, farmers need to exercise SELF DENIAL. No one can be a good farmer without it, and with it he may become the highest type of man. His occupation will call out every faculty he has—mental, moral and physical. Patience is one of the rarest virtues. No man can be great without it, and certainly the farmer has abundant occasion for cultivating it. Let a young farmer be self-denying, industrious, observing, patient, energetic and studious, and he can hardly fail to make his mark in the world.

“How much corn will it take to make a hundred pounds of pork?” I asked this question last night at Town Meeting. There were a dozen good farmers present, but not one of them could answer. The Deacon said he could tell me one thing: To feed merchantable grain to pigs would not pay. You could get more for the grain than you would get for the pork. I told him that the manure must be taken into consideration. He thought that at the present

time the labor of attending the pigs was fully equal to the manure. But if labor is high, manure is high also. Try to buy it and see what it will cost.

In Mr. Lawes' experiments it took about seven bushels of corn, ground and moistened with water, to produce one hundred pounds of pork—or rather of increase in the weight of the pigs. But as the pigs are worth more per pound when fat than when lean, we may safely call the increase in live weight equal to so much pork. Pork is now worth \$15.00 per hundred pounds, and with corn at \$1.50 per bushel, the seven bushels of corn would be worth \$10.50. This would leave a profit of \$4.50 on each hundred pounds of pork; or, in other words, we should get over \$2.00 per bushel for the corn, besides the manure.

The manure from seven bushels of corn is worth, at the present time, about \$2.00. You can not buy it for that in any form. Pig-feeding, at the present time, therefore, is highly profitable. There is a real scarcity of pork in the country, and while every thing else has declined pork still maintains its price.

A farmer in this neighborhood called to-day to know if I would sell my hogs. He was buying on commission for parties at the East. I told him mine were not fat enough to kill, but on looking at them he said he had bought many not as good. “The fact is,” said he, “they are killing every thing they can get.” I did not tell him so, but I thought this a rather injudicious admission for a buyer. If they are killing all the half-fat hogs now, fat ones, by and by, will be scarce and high. He was a farmer himself, he said, and did not wish to influence me, but he had sold his own hogs, and many of his neighbors were doing the same. Corn brings a high price, and he thought it was better to sell it than to feed it out to pigs. He would give 8 cents per pound live weight. I told him I received a New York paper an hour or two ago, and good corn fed hogs were quoted at 13 cents per pound live weight. “Well,” he said, “I am not allowed to pay but 8 cents for the hogs, but I will pay you something to take them up to North Chili.”

In England if a farmer keeps a gig or buggy which costs £20, he has to pay a tax to the Government; so that it is quite an object to get one that costs less than £20. A farmer who thinks he can afford to pay a little more for a handsome gig, but who wishes to avoid the tax, will sometimes pay £30 for a gig and whip—£19 10s. for the gig and ten guineas for the whip!

I did not ask him, but perhaps my pig-buying friend would have given me 8 cents per pound for the hogs, and a cent a pound for driving them two miles to North Chili. He could then tell others that in no case had he paid more than 8 cents per pound.

It is certainly very foolish to sell lean hogs, even at the present high price of corn. "Grass-fed hogs" are quoted in New York at 9 cents per pound, while the best "corn-fed hogs" sell for 13 cents. Now suppose you have a lot of shoats that will weigh 200 pounds each; at 9 cents per pound they are worth \$18 a head. Feed them 14 bushels of corn and they will then weigh 400 pounds each, and be worth, even at present, 13 cents per pound, or \$52 apiece. Reckoning the corn at \$1.50 per bushel, or \$21, you will make \$13 per head. This is on the supposition that fat pigs will be worth no more later in the season than they are now, which there is every reason to believe will not be the case. Last year they advanced considerably between this time and Christmas, and will probably do so this season.

I was so annoyed this spring by the delays in getting plows, implements, &c., ready for work, that I am determined to have every tool, machine, cultivator, plow, &c., put in repair this fall. I have already commenced. It is just the work for a rainy day. I find it a great convenience to have on hand bolts and screws of various sizes. With these, and proper tools, an ordinary man can repair many things as well as a blacksmith.

I have no doubt that it would be a great saving in the long run if we were more careful in cleaning and *painting* our wagons, carts, machines, cultivators, plows, &c., at this season of the year, before they are put away for the winter. Paint is now expensive, but so are implements, and they would undoubtedly last much longer, and certainly look none the worse. I admire the farmer who keeps things snug, with everything in its place. Nothing looks worse, or is more unprofitable, than a slipshod style of farming. But it requires constant care to keep things in their places. I try my best to do so, but cannot congratulate myself on the result. I have spasmodic efforts at straightening up, but in a week things are at loose ends again. I proposed to my men that every time they left a tool out of its place they should pay 10 cents, and every time I transgressed in the same way I would pay a quarter, the sum to be divided among the men on the farm at the end of the season. But it is difficult to carry it out. The better way is to make a man who leaves a thing go and get it after he is through his work. I made one man walk three miles to fetch a bag he had forgotten. He will be more careful next time.

I was telling you last spring about my orchard of Northern Spies. They were planted about seven years ago. About five acres of the orchard have been in grass for four years, while one acre has been under the plow. The difference in the health and

growth of the trees is quite marked. I had thought that as the Northern Spy is a long time in coming into bearing, and that as a rapid growth of wood has a tendency to retard fruitfulness, and letting an orchard remain in grass would check the growth of the trees, that it might be better not to plow this orchard of Northern Spies. *But it is a mistake.* The trees in the cultivated land are not only more vigorous and healthy, but they have borne more or less fruit of excellent quality, while there is scarcely an apple on the trees in the grass.

I do not want to plow this orchard, as it is the best piece of meadow on the farm, and I should be short of hay next season. The Deacon advises me to put manure enough, for a few feet round each tree, to *kill the grass*. He thinks this would obviate the difficulty. Another neighbor says he digs round his trees two feet from the stems, but it seems to me that this can do little good. The roots must be far beyond the reach of such treatment.

Mr. Lyman Balcom, of Steuben county, an old and experienced farmer, writes me that he thinks "one load of manure hauled out and spread at any time between the 20th of September and winter, is worth more than two loads applied at any other season of the year."

This is, perhaps, stating it a little strong, but it is certain that the bulk of testimony is now in favor of using manure as a top-dressing on grass lands in autumn. A few years ago it was thought that the ammonia would be lost, but if the manure is well rotted, or not rotted at all, there is comparatively little loss from escape of ammonia. In well-rotted manure the humic, ulmic and other acids generated by decomposition, unite with and "fix" the ammonia. And in fresh manure, that has not been fermented at all, there is no ammonia to escape. Ammonia is the product of fermentation. If a heap of manure that is undergoing fermentation is drawn out on the land, there may be considerable loss of ammonia, but even in this case, if it is showery weather the loss will be far less than was generally supposed a few years ago. Water has a very strong attraction for ammonia, and will hold large quantities of it.

Mr. Balcom is not much in favor of turnip culture in sections where corn can be easily raised. He thinks one reason why Canadian farmers raise so many turnips is because they were in the habit of raising them in the old country, and think they need them here, and because corn is not much of a crop in Canada. He says with the same amount of capital and labor he can raise corn and make double the amount of beef, pork and mutton that he can from turnips and other roots.

Mr. N. Travis, of Rice, county, Minnesota, writes me, that notwithstanding the severity of the drouth, the corn crop turned out better than was expected. It was all ripe and cut up by the 5th of September, which is a month earlier than usual. On the sandy soils the crops are light. With us the sandy soils stood the drouth better than the clays. It would not be so, of course, if the clays were thoroughly drained and well cultivated.

Mr. Travis says farmers in Minnesota would do very well if they got a living price for their grain; but the produce dealers shave them terribly. Prices vary from day to day, and when you take anything to market you are never certain what you will get. Wheat brings from 85c. to 90c. The millers, he says, are very kind to the farmers. They do not wish them to lose any time waiting for their grists, so they will not grind their grain, but exchange with them, giving them 32 lbs. of flour and 12 lbs. of bran for a bushel of No. 1 wheat, and still less for other grades.

Horace Greeley offered a prize of one hundred dollars each for the best single variety of apple, pear and grape "best adapted to universal cultivation throughout the Middle and Northern States of the Union," the prizes to be awarded by the Fruit Department of the American Institute. The prize for the best grape has recently been awarded to Dr. C. W. Grant for his new seedling grape, the Iona.

This is too absurd. The Iona is an excellent grape, but it has not yet been fruited in different sections of the country. It is almost unknown. How, then, can the Committee of the American Institute tell whether it is or is not the "best grape for universal cultivation"!

I am plowing all I possibly can this fall. Last spring was so wet and I was so hurried with the spring work that I resolved never again to be caught with so much hard plowing to be done. I have already plowed over thirty acres, and shall keep on as long as the weather is open and the ground dry enough to plow. If corn ground, where barley is to be sown next spring, is well plowed this fall, it may be sown without another plowing, though if dry enough a good plowing in the spring would be advantageous. You cannot make the soil too mellow for barley.

I intended to sow barley on my corn ground and seed it down; but, although I cultivated it *ten times*, the land is full of thistles, and I have determined to plant it to corn again, and try the effect of another summer's thorough cultivation on the thistles. A good heavy crop of clover helps to kill weeds, but I think it better to make the land as clean as possible before seeding down. If the land is rich enough

corn does well after corn, and though my land is by no means rich I think the bone dust I used on the corn this summer will help the next crop of corn more than it did the first crop this dry season.

Last fall I set out a bed of hyacinths. It was very late—after Thanksgiving. The ground was frozen when I dug the beds. But I put in the bulbs and covered the bed with horse-litter. It was decidedly rough treatment for the choicest of all flowers. But they succeeded admirably. Nothing could exceed their beauty or fragrance in the spring. The bed faced the parlor window, and in the dreary, rainy weather of last spring, when the garden was bare of flowers, they were a constant source of delight. The bulbs are expensive, but they pay. I got them from Mr. Vick, who annually imports the choicest varieties from Holland. This fall I mean to set them out in good season and give them better culture. It is very evident, however, that no such careful preparation is needed as writers on horticulture would have us believe. No one who sets out hyacinths, crocuses, tulips, narcissus, snow-drops, &c., this fall, will regret it next spring.

Potatoes are turning out much better than was expected. In this section they will be nearly an average crop. We are not yet through digging, but from what we have dug I think my Flukes will go over 150 bushels per acre, and the Prince Alberts are still better. I planted them in rows, not in hills, and spread in the rows about 300 lbs. per acre of Ammoniated Pacific Guano. Prejudiced as my men are against "artificial," one of them after digging a little while remarked: "That stuff you put on must have done some good, or you never would have had such a crop on this poor land. It is the best crop I ever saw." This was a good deal for him to admit. I have no doubt that it increased the yield 50 bushels per acre—and this in such a dry season is rather remarkable.

We have quite a number of late cauliflowers in the garden that have not headed. I intend to dig them up, with a good spadeful of earth round the roots and put them close together in the cellar. We did so some years ago, and the cauliflowers headed nicely and gave us a good supply late in the season. There is no more delicious vegetable than the cauliflower, and it is worth taking a little trouble to obtain a supply in early winter.

Is not clearing up new land and pulling out stumps *jolly!* I have always thought underdraining the most fascinating of all agricultural operations, but pulling stumps, snagging old logs, burning the heaps and turning up the virgin soil for the first time certainly takes the palm.

FARM WORK FOR NOVEMBER.

DURING this month autumn work must be closed up, and preparation made for winter.

ROOTS.—Rutabagas and other root crops should be harvested early in the month, or one freezing night may destroy them. A special provision should be made for the preservation of rutabagas in masses to prevent their heating and spoiling. If buried out of doors they should be in a long pile, with frequent ventilating wisps of straw at the top; if stored in cellars they should be placed on a wooden grate or rack, so that the air may frequently pass under and up through them. All roots, whether turnips, beets or carrots, should be packed away clean and dry.

ANIMALS.—Keep all fattening animals comfortable, dry and warm. Feed them regularly, frequently, and in moderate quantities. Do not try to economize by giving them foul or musty food. Provide places where they can obtain pure water at pleasure throughout the winter. Do not depend on pasture, especially after the frost has dried it, but give fodder with a small, regular supply of meal. Many cattle are injured, and badly fitted for winter, by compelling them to live on pasture alone, late in autumn. When pumpkins are abundant, pains should be taken to keep them well and to prevent their freezing. When frozen hard like stone, or after they have thawed and become rotten, they are poor food. They may be placed in large heaps in a sheltered place, and covered with a foot of straw, till wanted, and thus secured, will give cattle a fair start into winter.

GRAIN FIELDS.—Where wheat-fields have not been top-dressed with manure, as mentioned in the September directions, a thin dressing of fine manure can be still applied. It will serve to protect against winter-killing, and make a fine rich surface for the clover seed in spring. Provide surface drains wherever they will be needed, and shovel out the loose earth, that the water may run freely.

MANURE.—All the manure which can be found on the premises, or scraped up in the yard, should be spread before winter. Applied to grass lands, whether for pasture, meadow, or for turning under to be planted with corn, it will be worth twice as much as to be applied next spring. In some cases an increase of twenty-five bushels of corn per acre has resulted from thus manuring the sod in autumn, over a spring application.

FALL PLOWING.—It will greatly assist the labors of next spring, in planting and sowing early, to do as much plowing late in autumn as practicable. In order that there may be a free drainage, the furrows should run directly up and down hill, by the shortest slope; if plowed across, the furrows will become filled, and the land soaked with water. It may be

well to shovel the loose earth out of the dead furrows, for the same purpose. If the ground is wet or undrained, plow narrow lands. This treatment will enable the farmer to work his land early in spring.

SHELTER AND STABLES.—Prepare stables and sheds for winter, securing loose boards, making all necessary repairs, clearing away rubbish, and rendering the whole clean and comfortable.

GENERAL HINTS.—Save cornstalks from rain—for every farmer knows well the difference between fine, green, fresh fodder, and that which is wet, mouldy and half rotten. Finish under-draining. Keep cellars clean and neat. Shelter all tools, and apply a thin coating of lard and rosin to such parts as might become rusted. Draw leaves from the woods for littering stables and converting to manure—nothing is better than dry leaves for bedding animals on imperfect floors, as they entirely exclude the cold currents which would pass through straw.



Fig. 1.—Mode of banking up trees to protect from mice

ORCHARDS.—Transplant hardy trees—in windy places stake them against the wind. Where danger is feared from mice, all damage may be avoided by a small mound of compact earth a foot high, around each tree, beaten smooth with the spade, (fig. 1.) A mouse will never ascend a smooth bank of bare earth under snow; and, if trees are heeled in for winter, they may be secured from mice by observing the same precaution. It often happens that trees may be procured best in autumn, where they are to be brought long distances, or where it is desirable to make the best selection from nurseries. In such cases it is often

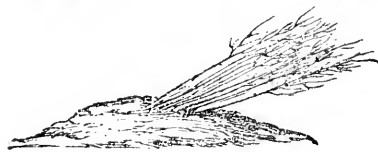


Fig. 2.

most convenient to set them out the following spring. In heeling them in, select a dry, clean, mellow piece of ground, with no grass near to invite mice; dig a wide trench, lay in the roots sloping,

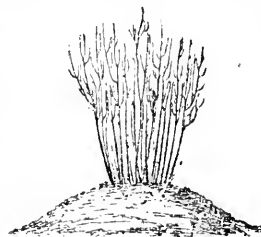


Fig. 3.

(fig. 2.) and cover them and half the stems with fine mellow earth; fill in carefully and solid all the interstices among the roots; doing this work imperfectly often results in loss—if well performed, it never can. If much danger is feared from mice, it is better to place the trees erect

in the trench, (fig. 3.) and round up the whole surface about them; but, being more exposed in this position, they should be placed in a more sheltered situation from the winds.—*Tucker's Annual Register.*

POULTRY HINTS FOR NOVEMBER.

WRITTEN FOR THE GENESEE FARMER BY C. N. BRMENT.

LET every farmer, if he has not already done so, see to it that he has comfortable quarters for his fowls the coming winter. If they are furnished with these, and have plenty of pure water, grain, vegetables, and some fresh meat, they will for this care furnish an abundance of eggs for the family. But if they are exposed to the cold, bleak winds and storms, and compelled to roost in the trees, and are only half-fed, or not fed at all, do not expect them to lay, for if you do you will surely be disappointed.

Here is one of the greatest and most prevalent faults of farmers in the management of their fowls. No suitable roosting place is provided for them. The naked, leafless trees too often furnish them their only shelter. Here they are exposed to the cold winds, sleet and rains of winter, and frequently so strong is the wind that the night through they have all they can do to maintain their foothold. The chilling snow and rain and sleet fall upon them. Can hens under such treatment be expected to lay? It requires all their vital powers to protect themselves against the blasts of winter let them be fed ever so well.

Hens need a variety of food. In the winter they should be supplied with fresh meat of some kind. In summer this is not necessary, if they are not kept in too great numbers, and are permitted to run at large, as they can then obtain worms, bugs, etc. They should also be supplied with pure water. Bones, oyster and clam shells, pounded fine, are good for them. Gravel is also requisite.

If hens are treated as we have recommended, the farmer may expect his hens to lay during the winter months.

A shed behind your horse-stable is a favorable place for your hens during cold weather. You can throw the manure from the stable to it, and as horse dung, especially where the animals are fed on grain, ferments rapidly and powerfully, its heat will conduce to keep up an economical summer-like temperature highly advantageous to the fowls. By sprinkling gypsum over the surface every few days, all the unpleasant and deleterious consequences resulting from ammoniacal gas, evolved by the manure, are neutralized and saved for the benefit of the crops. Another important advantage of this practice, is the saving effected by the economization of the grain

contained in the excrements. Hens accommodated in this way, if well fed and supplied with fresh meat, chopped vegetables and buttermilk, will lay constantly and be nearly or quite as profitable as during the summer months.

Birds of all kinds, both wild and tame, are liable from some unknown cause to be attacked with a particular sort of lice, which are generated on them in myriads. In some instances their feathers are so completely covered as to hide their natural color, and in many places the point of a pin cannot be put down without touching some of the vermin.

In all climates, and especially in this, vermin are often exceedingly annoying and the torment of hens, and materially prevent their growing and fattening. They are usually to be traced to evident neglect in the management of the poultry-yard. The fowls are half-starved, or the place is all over filth, or there is no dry corner with plenty of dust or ashes in which the birds may roll themselves.

But Mascall says: "They get lice in scraping abroad among fowle strave or on dung-hills, or when they sit in nests not made cleane, or in the hen-house by their dung laying long there, which corrupts their bodyes and breeds lice and fleas. The remedy," adds he: "ye shall take the powder of pepper, mixed with warme water, and therewith bathe them: or take fine powder of staveacre and mix it with lye (urine), and so washe them therewith; or to bathe in soap and water, which is good to kill lye, or the fine powder of pryoct mixte with vinegar, and so washe them therewith."

There are several kinds of vermin that infest domestic fowls, all troublesome and difficult to get rid of when once established, therefore it is well to examine your fowls, and if found on them no time should be lost in getting rid of them. But "prevention is better than cure." Strict cleanliness about the roosts and nests will always prevent hens from becoming lousy. The droppings under the hens should be removed frequently, the litters in the nests often removed, and air-slaked lime and ashes scattered around the floors, nest-boxes and roosts. Boxes of lime, ashes and fine sand or dust should always be kept under cover where the fowls can have constant access, that they may wallow and bathe in at pleasure. With these precautions, fowls that are free from vermin will never be infested. But where they have become lousy, the roosting apartment should be thoroughly cleaned, the straw and litter removed entirely from the nests, and the roosting-poles and the wood-work of the house thoroughly whitewashed with fresh slaked lime, into which a quantity of sulphur or tobacco has been mixed. This should be applied *hot*. A day or two after this operation, the fowls should be fed with

coarse corn-meal, into which a quantity of sulphur has been mixed with milk or water. Feed with this for several days; it may then be omitted for a few days, and repeated again at intervals of three or four days, and continued in this way until all the nits have been hatched, when the insects will drop off and leave the fowls. Thorough cleanliness after this will generally exterminate them. Fowls are always poor and unthrifty, and setting hens are seldom successful in hatching their eggs, when annoyed with vermin. A little care is all that is necessary to prevent it.

It is said that lice on fowls may be destroyed by pouring lard or whale oil beneath the wings and on the head and back. This will not only exterminate the lice, but produce a glossy appearance in the plumage of the fowls.

We have often tried, and with success, melted lard. Open the feathers or down, and with a spoon pour it upon the skin. Often one single operation, if thorough, will destroy all the vermin.

By attending to the following remedy, the fowls will entirely be kept clear of all kinds of vermin: First of all, if in confinement, in the dust corner of the poultry house mix about half a pound of sulphur among the lime and ashes the fowls dust in. This will give the feathers a glossy appearance, and if infested with lice, damp the skin under the feathers with water, then sprinkle a little sulphur on the skin. Let the bird be covered with insects or parasites, they will all disappear in the course of twelve hours, when they should be closely examined, and if any live insects can be discovered, apply the same remedy the second time. In the mean time the fowls should be fed with Indian meal and water, in which should be mixed one pound of sulphur to two dozen fowls, in two parcels, a few days apart. After the foregoing applications and precautions, fowls that are free from vermin will never be infested.

LARGE POTATOES.—In Corydon, N. H., Dr. D. D. Marsh raised a potato of the Orono variety that weighed 3 lbs. 3 oz.; William Smith, in the same town, grew one that weighed 3 lbs. 1½ oz. of the same variety as the former. It is a choice table variety. Dr. Marsh says 600 bushels per acre were formerly raised in that town. The rot has never troubled them there.—*Boston Cultivator.*

Good Cows.—A statement was made in the *Maine Farmer* in regard to three cows that made in one month one hundred and fourteen pounds of butter. Another correspondent states that Daniel Strong, of Vassalboro', has two farrar cows which, after using what milk and cream they wanted in a large family, made twenty-seven pounds of butter in one week.

WHAT SHALL WE EAT?

It requires more grace than usual to take no thought of what we shall eat, or what we shall drink, when prices run as they do now. In fact, it stands every man in hand, while he carries out the spirit of the Divine injunction by the exercise of quiet trust in Providence, at the same time to study the utmost economy in living.

Food is becoming more and more expensive. We may have famine prices as well as war prices. We must be prepared for the worst, and then we shall not be overwhelmed if the worst comes.

Now there is a vast difference in the worth, the intrinsic value, of various articles of diet: some that cost the most being the least nutritious. Dr. Hall, in his *Journal of Health*, has furnished some good hints and helps on this subject, and we quote from him the following:

What kind of food has the most nourishment and costs the least? is a question of great practical importance. The following tables may be studied with considerable interest by every family. They will show the mode of preparation, the amount of nutriment, and the time required for the digestion of the most common articles of food placed upon our tables. A dollar's worth of meat, at twenty-five cents a pound, goes as far as fifty cents' worth of butter, at half a dollar a pound. Three pounds of flour, at eight cents a pound, is said to contain as much nutriment as nine pounds of roast beef, which, at twenty-five cents, is \$2 25—that is, twenty-five cents' worth of flour goes as far as nine times that much money spent for roast beef, as weighed at the butcher's stall. A pint of white beans, weighing one pound and costing seven cents, contains as much nutriment as three pounds and a half roast beef, costing eighty-seven and a half cents. Of all the articles that can be eaten, the cheapest are bread, butter, molasses, beans, and rice. A pound of corn meal (Indian) goes as far as a pound of flour,—so that of fine family flour at \$16 a barrel, and corn meal at four cents per pound, the latter is just one-half less expensive. If corn and wheat were ground, and the whole product, bran and all, were made into bread, fifteen per cent. of nutriment would be saved, with much greater healthfulness. These are standard tables:

Kind of Food.	Mode of Preparation.	Amount of Nutriment.	Time of Digestion.
Cucumbers.....	Raw.....	2 ¾ cent.	H. M.
Turnips.....	Boiled.....	4 "	2 30
Milk.....	Fresh.....	7 "	2 15
Cabbage.....	Boiled.....	7 "	4 30
Apples.....	Raw.....	10 "	1 50
Potatoes.....	Boiled.....	13 "	2 30
Fish.....	Boiled.....	22 "	2 00
Vension.....	".....	22 "	1 30
Pork.....	Roasted.....	24 "	5 15
Veal.....	".....	25 "	4 00
Beef.....	".....	26 "	3 30
Poultry.....	".....	27 "	2 55
Mutton.....	".....	30 "	3 50
Bread (wheat).....	Baked.....	30 "	3 50
Beans.....	Boiled.....	37 "	2 50
Rice.....	".....	38 "	1 00
Butter and oils.....	".....	36 "	3 30
Sugars and syrups.....	".....	36 "	3 30

REMARKS.—We find the above in a recent number of the *New York Observer*. It is quite true that prices are now very high, and not improbable that they may be higher—that in fact as the *Observer*

says, we may have famine prices as well as war prices. It is also true that there is a great difference in the real worth of different articles of diet, that some which cost the most are the least nutritious.

But the table quoted from Dr. Hall's *Journal of Health* is a puzzle! We cannot imagine on what principle it is based. We supposed, on first reading it, that the Doctor had simply copied from some analytical table, the amount of *dry matter* in the different articles named, and gives this as "the amount of nutriment." This would be very absurd. Hay and straw each contain about 15 per cent. of water and 85 per cent. of dry substance. Are they both equally nutritious? Wheat frequently contains 20 per cent of water, and consequently less dry substance than hay and straw—is it therefore less nutritious? Saw dust contains less water and more dry substance than corn—is it therefore more nutritious? It can not be that this is the principle on which the table is based. It is too absurd.

Neither is the amount of nutriment calculated from the amount of nitrogen in the food, for beans which contain more nitrogen than any other vegetable product, are not placed as high as oil and sugar, which contain no nitrogen at all.

Neither is it on the amount of carbonaceous matter contained in the foods on which the table is based, for pork, which is usually the fattest meat we have (and consequently the most carbonaceous) is placed lower than beef, poultry or mutton.

The whole table is evidently mere guess work. That "three pounds of flour contains as much nutriment as nine pounds of roast beef," is alike contrary to experience, science and common sense.

HUSKING—WHAT IS A DAY'S WORK?—The question is not yet settled how many bushels of corn a man should husk in a day. D. Scott, Jr., of Seneca county, N. Y., husked in a day, working only nine hours, ninety-seven bushels of ears of corn, ninety of which were good sound ears, and seven of poor corn. The ears were pulled from the stalks which had been cut from the ground and shocked in the usual way; and the stalks he bound up as he proceeded. During the last hour he husked twelve bushels. Who can beat it?—*Boston Cultivator*.

Is such a feat possible? We had to pay six cents per bushel for husking this season.

M. DE LA TREHONNAIS, the well-known French agricultural writer, has been raised by the Emperor Napoleon to the rank of Knight of the Imperial Order of the Legion of Honor in acknowledgment of his services to French agriculture.

THERE are six hundred and forty acres of land in a square mile.

SHORT SERMONS FOR FARMERS—No. 9.

WRITTEN FOR THE GENESEE FARMER.

"Follow after patience."—1 *Timothy*, 6:11.

To look at a well cultivated farm—every thing in order, in doors and out, a careless observer, one who knows nothing of the details of farm operations would say, the owner of that farm must be a happy man—he can have little to irritate and vex him. There is some foundation in truth for such a remark, i. e. in a comparative sense—compared with one whose farm is in a dilapidated condition. Such a farmer is constantly exposed to irritation from injury to his crops by his own and his neighbor's cattle and by ten thousand nameless evils which he alone can enumerate. Add to this a heedless slattern for a wife, who never has any neatness or order in the house and who never has meals in season and you have a man placed in a situation where the grace of patience will be sorely tried. Compared with this man, the farmer has little occasion for vexation whose fields are protected by a high strong fence, and whose wife gives meat to her household in season, and who is not so fastidious a housekeeper, as to be ever fretting and scolding him for some dirty habit. I have, though not often, seen women who were so excessively neat as to be most uncomfortable, vexatious companions for men whose employment necessarily contracted some dirt upon their persons. Such women are by no means common, however. Few farmers have reason to be vexed with the excessive neatness of their wives—nor with the promptness and regularity with which they provide their meals. I fancy I hear some good housewife reply—"well, but I have reason to complain of my 'men folks' who hinder and vex me by not coming to their meals when they are ready. I could do my work far easier if they were always prompt and would scrape their feet when they come in." But no man nor woman can be so situated in this life as to be wholly beyond the reach of temptation to impatience.

Patience is a virtue by no means easy of attainment. As a christian virtue it is a fruit of the Spirit and not the product of self-discipline. Still its cultivation is connected with our own efforts to restrain that within us which is evil. No virtue is more necessary to adorn our character—none more essential to render us agreeable companions—none more necessary to our own comfort. We can neither be happy ourselves nor agreeable to others if this virtue be wanting. However destitute of it we may be ourselves, we cannot refrain from commending it in others.

Patience is not insensibility under the pressure of provocation—nor indifference to any good for the

present withheld from us. It supposes suffering, it implies the delay of anticipated and ardently desired good. If the power of not feeling be either natural or acquired, calmness under the infliction of evil is not patience. Some seem to be so constituted as neither to enjoy nor suffer much. On the other hand, others are so constituted that they are exceedingly sensitive to pain or pleasure, either physical or mental. Hence the same event will not affect both equally alike. There is not, therefore the same draft upon the patience of all in the same circumstances. Patience, as a christian virtue, is that calm and unruffled temper with which a good man bears the evils of life, under a sense of his affliction. It is the opposite of a hasty, troubled, or vexed spirit. When our trials arise from the misconduct of others, especially the unfaithfulness and heedlessness of servants we are liable to become excited and to give vent to harsh or extravagant expressions. So when hopes, fondly indulged are long delayed, we often fall into despondency. Now the only safeguard against this rashness, depression and unhappy state of mind is the grace of patience.

It seems to be a dictate of our natural hearts to charge God foolishly from present appearances. If we are brought into circumstances where we cannot see how he is to fulfil his promises, we are naturally disposed to mistrust him. A patient spirit at such times is willing to let God fulfill his promises in his own way and at his own time. Protracted suffering and frequent disappointments when we are under the influence of this grace do not induce in us a suspicion of his goodness nor of his kindness to us.

Patience will fortify us against temptation to employ unlawful means to deliver ourselves from trouble, or to obtain a desired good. Saul, through impatience, adopted an unlawful expedient to deliver himself from the Philistines. He waited seven days at Gilgal for Samuel to come according to appointment. It appeared to him, after waiting so long; that his circumstances required something to be done to gather the scattered host of Israel, and to accomplish this object he ordered a burnt offering to be made—which was unlawful. Upon the close of the ceremony Samuel appeared. Saul pleaded the extremity of his circumstances in justification of his conduct, but the prophet said, "Thou hast done foolishly; thou hast not kept the commandment of the Lord thy God, which he commanded thee, for now would the Lord have established thy kingdom upon Israel forever. But now thy kingdom shall not continue." If Saul had exercised patience in the trying circumstances in which he was placed and obeyed God when obedience seemed to lead to ruin, he would have saved his throne. Through impatience he adopted an unlawful ex-

pedient and lost his kingdom forever. "The Lord will provide," is the language of patience in the greatest extremity.

Patience disposes us to persevere in the path of duty, whatever discouragements may arise. The exhortation to "run with patience the race that is set before us," implies that the christian life is beset with trials, disappointments and discouragements. It is impossible so to arrange our worldly, or even our spiritual affairs as to avoid disappointment and vexation. The scriptures teach us that if we are the children of God, we are called to the exercises of this virtue in order to imitate Christ. "For even hereunto were we called; because Christ also suffered for us leaving us an example, that ye should follow his steps, who did no sin, neither was guile found in his mouth, who when he was reviled, reviled not again; when he suffered he threatened not, but committed himself to him that judgeth righteously." We are bound to imitate Christ. It is no excuse to say, "we are unreasonably provoked." So was he. He injured no one. Yet he was ill-treated. In our present state the exercise of patience is absolutely necessary to our comfort. If we were in a world where there is no suffering, there would be no need of patience. But every thing in this world is in disorder and confusion. The innocent suffer with the guilty. Man is the enemy of man. Sickness, adversity and trouble infest all classes and condition of men. The throne and the dunghill are not exempt. Now, there is no remedy for our tribulation but patience. Fretting and complaining only add evil to evil. "He that endureth to the end shall be saved." From this declaration it appears that patience is as necessary to salvation as it is to present happiness. We are not therefore in the way to heaven if we indulge an impatient spirit—if we fret and murmur and complain under the ills of life we are not fit for heaven—we are not following Christ. Without patience, faith will fail in the time of trial. It is not through faith alone, but through faith and patience that we inherit the promises.

As a class, farmers have more to try their patience. Their workmen are often unskillful, wasteful, indolent or impudent. Then the weather often frustrates their plans of sowing and reaping. No one knows except by experience how many occasions daily occur on a farm for the exercise of patience, and how urgent the temptation to fretfulness and complaining. The only true remedy is to keep in mind our great example and in all things seek to imitate him.

WIRE-WORMS.—E. Pratt, of Turner, offers, in the *Maine Farmer*, fifty dollars to anyone who will give him "information how to destroy wire-worms, and effect a permanent cure against their troubling crops, provided the remedy would be practicable and not too expensive."

LETTER FROM CANADA WEST.

MOUNT VERNON, C. W.

DEAR GENESEE FARMER: You will see from my heading that I have changed my "base of operations," and have made Mount Vernon my "head-quarters." It is a pleasantly located village, on the summit of a considerable rise of ground, and commands an extensive prospect of undulating plain and fertile field, not bounded, as usual in Canada, by the skirting of timbered land or forest, but much resembling English park scenery. The prosperous and rising towns of Brantford, Paris, Woodstock and Simcoe, and the large and well-named villages of Mount Pleasant and Claremont, surround us.

This section of country was originally extensive plains—somewhat resembling, I suppose, your prairies, on a small scale—covered with a thick growth of scrub oak, with an undulating surface, and meandering streams which have since afforded abundant water privileges for driving the machinery of numerous mills, &c. The air is pure and invigorating, the elevation being high, and sometimes we have fancied that the eternal cloud of spray rising from Niagara Falls could be discovered. The soil is productive and the climate very healthy.

One would think that the early settler would have imagined he had found a Paradise when he discovered these plains, but it was not so. He passed by them as not worth having, and selected him a farm further west, on heavy timbered land, where years of toil were necessary to clear it. Fifty years ago, a farm on Burford plains would hardly have been accepted as a gift, "for if the land can't grow good timber, how can it grow wheat?" they reasoned. But by degrees the forest land around became all taken up, and later comers, esteemed less fortunate, had to settle upon these plains. These soon, however, began to discover that they possessed many advantages over their older settled neighbors. The settler on them soon cleared, with comparatively little labor, as much land as he wished to cultivate. No unsightly stumps were left behind to try his patience or to break his plow, and occupy one-fourth his soil. Having sown his fields, he was delighted to find that not only did the soil yield to him an ample recompense, but his harvest was two weeks earlier than that of others. This is owing to the soil being naturally underdrained, being composed of a rich loam lying on a bed of gravel, which rests on the compact clay. The plains now became eagerly sought after, and he was fortunate who secured a portion of them, as they may now appropriately be styled the Garden of Western Canada. Among the fortunate ones who first settled there were Mr. Thos. Perrin, who with his sons own some six hundred acres, and besides farming drive on considerable bu-

siness in milling, wool-carding and store-keeping; and Col. Perley, who a few years since erected a magnificent flouring mill, and whose farm embraces many hundred acres of the best of land; and Mr. Nelles, whose son now inherits a hundred and fifty acres, as beautiful a farm as a farmer could desire, who has just succeeded in completing his outbuildings, and they are as complete and as well-arranged as any I know of. I should like to send you a description of them, had I the time.

Possessed of these advantages, the fortunate settler on the plain land soon began to outstrip his neighbor of the forest, and no part of our country has made more rapid progress. The evidences of this are everywhere very striking. Princely mansions, mostly built of brick or stone, have taken the places of the first rough structures. These are furnished in a manner that the city belle would not disdain, and are embowered in orchards of apple, pear, peach, plum and cherry trees, and each has its flower beds and its not less useful kitchen garden. The roads are lined with oak trees, whose over-spreading branches make beautiful avenues.

After thirty years of cultivation, these plains retain their productiveness, and the crops of the present season would have been as abundant as formerly, if the season itself had been favorable, and the midge had not committed its ravages. But the fall wheat was damaged fully one-third by being winter-killed. On some of the fields, which from the road looked well, I found many spots of half an acre or more without a spear growing on them. Another third has been destroyed by the midge, so that many farmers will not realize more than from five to ten bushels to the acre. We have felt the drouth severely, though not so much so as further south of us. The hay crop was extra good and well got in. Barley is ordinarily good. I hear some complaints of the midge in it. Oats are not extensively grown, and are a poor crop. Corn is grown extensively, the land being admirably suited for it. It is somewhat injured by the drouth, but may be considered a fair crop. Potatoes are almost a failure. The extensive hop yards of Brantford will pay well. I see little patches of tobacco, which promise much comfort to those whose happiness, mental and spiritual, depends upon "the weed."

But, with all, we feel the "hard times." The rate of exchange is so great as to almost exclude our produce from your market, and I have been told that a leading miller buys wheat in Chicago which costs him, on this side, only 70 cents per bushel; so that prices with us must range low.

I must not trouble your readers more at present.

YOUR CANADIAN COUSIN.

We shall be happy to hear frequently from our

Canadian Cousin. The district he describes is one of the finest in Canada West. It is very similar to the oak openings in Wheatland and Mendon, in this county. Here, as in Canada, the heavy-timbered land and river flats were preferred by the early settlers, but now, by plowing in clover, &c., they are the best wheat lands in the country.

ELIHU BURRITT ON ENGLISH BIRDS.

"WE need an Audubon or Wilson, not to make new collections of feathered skeletons, and new volumes on ornithology, but to effect an exchange of living birds between Europe and America; not for caging, not for Zoological gardens and museums, but for singing their free songs in our fields and forests. There is no doubt that the English lark would thrive and sing as well in America as in this country. And our Bobolink would be as easily acclimated in Europe. Who could estimate the pleasure which such an exchange in the bird-world would give to millions on both sides of the Atlantic?"

"There are some English birds which we could not introduce into the feathered society of America, any more than we could import a score of British Dukes and Duchesses, with all their hereditary dignities and grand surroundings, into the very heart and center of our democracy. For instance, the grave and aristocratic rooks, if transported to our country, would turn up their noses and caw with contempt at our institutions—even at our oldest buildings and most solemn and dignified oaks. It is very doubtful if they would be conciliated into any respect for the Capitol or the White House at Washington. They have an intuitive and most discriminating perception of antiquity, and their adhesion to it is invincible. Whether they came in with the Normans, or before, history does not say. One thing would seem evident. They are older than the Order of the Garter, and belonged to feudalism. They are the living spirits of feudalism, which have survived its human retainers by several hundred years, and now represent the defunct institution as pretentiously as in King Stephen's day. They are as fond of old Norman castles, cathedrals and churches as the very ivy itself, and cling to them with as much pertinacity. For several hundred generations of bird-life, they and their ancestors have colonised their sable communities in the baronial park-trees of England, and their descendants promise to abide for as many generations to come. In size, form and color they differ but little from the American crow, but are swifter on the wing, with a greater "gift of the gab," and less dignified in deportment, though more given to aristocratic airs. Although they emigrated from France long before 'La Democratie Sociale' was ever heard of in that

country, they may be considered the founders of the *Socialistic* theory and practice; and to this day they live and move in *phalansteries*, which succeed far better than those attempted by the American "*Utopianites*" some years ago. As in human communities, the collision of mind with mind contributes fortuitous scintillations of intelligence to their general enlightenment, so gregarious animals, birds and bees seem to acquire especial quick-wittedness from similar intercourse. The English rook, therefore, is more astute, subtle and cunning than our American crow, and some of his feats of legerdemain are quite vulpine.

"The Jackdaw is to the rook what the Esquimaux is to the Alogonquin Indian; of the same form, color and general habits, but smaller in size. They are as fond of ancient abbeys and churches as were ever the monks of old. Indeed, they have many monkish habits and predilections, and chatter over their Latin rituals in the storied towers of old Norman cathedrals and in the belfries of ivy-webbed churches in as vivacious confusion.

"There is no country in the world of the same size that has so many birds in it as England; and there are none so musical and merry. They all sing here congregationalwise, just as the people do in the churches and chapels of all religious denominations. As these buildings were fashioned in early times after the Gothic order of elm and oak-tree architecture, so the human worshippers therein imitated the birds, as well as the branches, of those trees, and learned to sing their sabbath hymns together, young and old, rich and poor, in the same general uprising and blending of multitudinous voices. I believe everything sings that has wings in England. And well it might, for here it is safe from shot, stones, snares, and other destructives. 'Young England' is not allowed to sport with firearms, after the fashion of our American boys. You hear no juvenile popping at the small birds of the meadow, thicket, or hedgerow, in spring, summer, or autumn. After traveling and sojourning nearly ten years in the country, I have never seen a boy throw a stone at a sparrow, or climb a tree for a bird's nest. The only birds that are not expected to die a natural death are the pheasant, partridge, grouse and woodcock; and these are to be killed according to the strictest laws and customs, at a certain season of the year, and then only by titled or wealthy men who hold their vested interest in the sport among the most rigid and sacred rights of property. Thus law, custom, public sentiment, climate, soil and production, all combine to give bird-life a development in England that it attains in no other country. In no other land is it so multitudinous and musical; in none is there such ample and varied provision for housing

and homeing it. Every field is a great bird's-nest. The thick, green hedge that surrounds it, and the hedge-trees arising at one or two rods' interval, afford nesting and refuge for myriads of these meadow singers. The groves and thickets are full of them and their music; so full, indeed, that sometimes every leaf seems to pulsate with a little piping voice in the general concert. Nor are they confined to the fields, groves and hedges of the quiet country. If the census of the sparrows alone in London could be taken, they would count up to a larger figure than all the birds of a New England county would reach. Then there is another interesting feature in this companionship. A great deal of it lasts through the entire year. There are ten times as many birds in England as in America in the winter. Here the fields are green through the coldest months. No deep and drifting snows cover a frozen earth for ten or twelve weeks, as with us. There is plenty of shelter and seeds for birds that can stand an occasional frost or wintry storm, and a great number of them remain the whole year around the English homesteads."

Mr. Burritt ought to be a good authority on the subject, but we can scarcely believe that the nature of boys has so completely changed since we left England, and that they never rob a bird's nest nor shoot a bird if a gun is an attainable thing; but then this is an age of progress.

In another place Mr. Burritt describes the English lark and its American cousin, the Bobolink. He praises the former most enthusiastically, and then says:

"The only American bird that could star it with the English lark, and win any admiration at a popular concert by its side, is our favorite comic singer, the *Bobolink*. I have thought often, when listening to British birds at their morning rehearsals, what a sensation would ensue if Master Bob, in his odd-fashioned bib and tucker, should swagger into their midst, singing one of those Low-Dutch voluntaries which he loves to pour down into the ears of our mowers in haying time. Not only would such an apparition and overture throw the best-trained orchestra of Old World birds into amazement or confusion, but astonish all the human listeners at an English concert. With what a wonderment would one of these blooming, country milkmaids look at the droll harlequin, and listen to those familiar words of his, set to his own music:

"Go to milk! go to milk!
Oh, Miss Phillisey,
Dear Miss Phillisey,
What will Willie say
If you don't go to milk!
No cheese, no cheese,
No butter nor cheese
If you don't go to milk."

Of our robin he says: "In form, dress, deportment, disposition, and in voice and taste for vocal music, the American robin surpasses the English most decidedly." And he says, too: "There is nothing here approaching in vivid colors the New England yellow-bird, hang-bird, red-bird, indigo-bird, or even the blue-bird. In this, as well as other differences, Nature adjusts the system of compensation which is designed to equalize the conditions of different countries." So that all the compensation we have for the loss of so much melody, according to Mr. Burritt, is in a few bright feathers. He seems to have forgotten two sweet singing as well as gaily-dressed birds, the Golden Oriole and the Tanager; though it is possible he refers to them as the hang-bird and the red-bird.

AUTUMN PLOWING.

THE New York *Tribune* urges farmers to plow as much as possible this autumn. It says:

"Plow every day that it is possible to do so, before frost stops you, because you do not know how short of time and how costly labor will affect you next spring, and it is your duty to prepare for it now. One farmer says of his operations this year of dear labor and drouth:

"Last season I plowed in the fall for all my spring crops. This season, when ready to plant corn and potatoes, I harrowed the ground thoroughly and then rolled it. At this time I have as good a field of corn as any one would wish to see and the best I have ever had."

"Better, probably, than he would have had if he had waited till spring to plow the ground, by more than enough to pay four times the expense of plowing. That certainly was our experience in a piece of oats. The best piece of oats that we ever grew, was upon ground deeply plowed in autumn, manured in spring and plowed with a subsoil plow, deep as it would run; then harrowed to stir the surface and mix the manure; then sowed, four bushels to the acre, and the seed plowed in and surface-dragged smooth with a bush. We ask farmers to try this course the present autumn."

SCARCITY OF WOOD.—The *Railroad Record* says that although the railroads in Ohio, when first constructed, passed through a densely-wooded country, yet now on the main lines, wood is disappearing at a rate which will soon put it out of the power of the railroad companies to command wood under a very high price. It states that the railroads of Ohio consume *twelve thousand acres* of wood per annum! Wood is becoming very scarce in all the older settled sections of the country, and it is high time that more attention was paid to setting out trees on waste.

NATHAN AND THE CHEMIST.

A shrewd chemist, devoting himself to the missionary work of building up farming by the aid of his science, pays a parochial visit to one of the backsliders whom he counts most needful of reformation. The backslider,—I will call him Nathan,—is breaking up a field, and is applying the manure in an unfermented and unctious state;—the very act of sinning, according to the particular theory of our chemist, perhaps, who urges that manures should be applied only after thorough fermentation.

He approaches our plowing farmer with a "Good morning."

"Morning'," returns Nathan (who never wastes words in compliment).

"I see you use your manure unfermented."

"Waal, I d'n'know—guess it's all right; smells pooty good, doan't it?"

"Yes, but don't you lose something in the smell?"

"Waal, d n'know;—kinder hard to bottle much of a smell, ain't it?"

"But why don't you compost it; pack up your long manure with turf and muck, so that they will absorb the ammonia?"

"The what?—(Gee, Bright!)"

"Ammonia; precisely what makes the guano act so quickly."

"Ammony, is it? Waal,—guanner has a pooty good smell tew; my opinion is, that manure ought to have a pooty strong smell, or 'taint good for nuthin'."

Scientific gentleman a little on the hip; but receives under the pungency of the manure.

"But if you were to incorporate your long manure with turf and other material, you would make the turf good manure, and put all in a better state for plant food."

"Waal—(considering)—I've made compo's afore now; dooz pooty well for garden sass and sich like, but it seems to me kinder like puttin' water to half a glass o' sperit; it make a drink a plaguey sight stronger'n water, no doubt o' that; but after all's said and dun,—'taint so strong as the rum. (Haw, Buck; why don't ye haw!)"

Scientific gentleman wipes his spectacles, but follows after the plow.

"Do you think, neighbor, you're plowing this sod as deeply as it should be?"

"Waal—(Gee, Bright!)—it's as folks think; I doan't like myself to turn up much o' the yaller; it's a kind o' cold sile."

"Yes, but if you exposed it to the air and light wouldn't it change character, and so add to the depth of your land?"

"Doan't know but it might; but I ha'n't much opinion o' yaller dirt, nohow; I kinder like to put

my corn and potatoes into a good black sile, if I can get it."

"But color is a mere accidental circumstance, and has no relation to the quality of the soil."

("Gee, Bright! gee!")

"There are a great many mineral elements of food lying below, which plants seek after; don't you find your clover roots running down into the yellow soil?"

"Waal, clover's a kind of a tap-rooted thing,—nateral for it to run down; but if it runs down arter the yaller, what's the use o' bringin' on it up?"

The scientific gentleman sees his chance for a dig.

"But if you can make the progress of the roots easier by loosening the sub-soil, or incorporating a portion of it with the upper soil, you increase the facilities for growth and enlarge your crops."

"Waal, that's kinder rash'nal; and ef I could find a man that would undertake to do a little of the stirrin' of the yaller, without bringin' much on't up, and bord himself, I'd furnish half the team and let him go ahead."

"But wouldn't the increased product pay for all the additional labor?"

"Doan't b'lieve it would, nohow, between you and I. You see, you gentlemen with your pockets full o' money (scientific gentleman coughs—slightly), talk about diggin' here and diggin' there, and turnin' up the yaller, and making compo's, but all that takes a thunderin' sight o' work. (Gee, Bright! g'lang, Buck!)"

The scientific gentleman wipes his spectacles, and tries a new entering wedge.

"How do you feed your cattle, neighbor?"

"Waal, good English hay; now and then a bite o' oats, 'cordin' as the work is."

"But do you make no beeves?"

"Heh?"

"Do you fatten no cattle?"

"Yaas, long in the fall o' year I put up four or five head, about the time turnips are comin' in."

"And have you ever paid any attention to their food with reference to its fat-producing qualities, or its albuminoids?"

"(Gee, Bright!)—bumy—what?"

"Albuminoids—name given to flesh producers, in distinction from oily food."

"Oh,—never used 'em. Much of a feed? (G'lang, Buck!)"

"They are constituent parts of a good many varieties of food; but they go only to make muscle; it isn't desirable you know to lay on too much fatty matter."

"Heh?—keep off the fat do they? (Gee, Bright!) Dum poor feed, then, in my opinion."

By this time the end of the furrow is reached, and the scientific gentleman walks pensively toward the fence, while Nathan's dog that has been sleeping under a tree, wakes up, and sniffs sharply at the bottom of the stranger's pantaloons.

I have written thus much, in this vein, to show the defensible position of many of the old style farmers, crusted over with their prejudices—many of them well based, it must be admitted—and armed with an inextinguishable shrewdness. The only way to prick through the rind is to show them a big crop grown at small cost, and an orderly and profitable method, gradually out-ranking their slatternly husbandry.—*My Farm of Edgewood.*

BEE KEEPER'S TEXT BOOK.

IF Bees do not receive that attention in America which their value demands it will not be owing to any lack of books on the subject. Quinby, Minor & Langstroth have given us good sized volumes on the management of the honey bee, while small treatises are even still more numerous. A year or two ago we had also a periodical, the *American Bee Journal*, devoted exclusively to this interest.

We have now before us another little work called "The Bee Keeper's Text Book, or Facts in Bee Keeping, with alphabetical index, being a complete reference book, on all practical subjects connected with the culture of the honey bee, for both common and movable comb hives, giving minute directions for the management of bees, in every month of the year and illustrating the nucleus system of swarming. By N. H. & H. A. King, for 'The American Bee-Hive Company' of Nevada, Ohio." Like all our other Bee Books, it is published for the purpose of recommending a particular kind of patent hive, but is as free from mere business matters as most books of this character. Aside from this, (which in reality does not lessen the usefulness or interest of the book, except so far as to throw doubts on the candor and impartiality of the author,) the Bee Keeper's Text Book is a very useful and valuable work. Written in a plain, concise style, it gives just the information that young bee keepers require, and which old ones may read with advantage. We have never read a work on bees that gives so much of the information that those intending to keep bees for the first time require. In this respect this little work will prove exceedingly useful.

A Parisian physician relates a curious case of poisoning by tobacco. A man had wrapped together leaves all around his body on the naked skin, in order to smuggle the article across the frontier, but the perspiration caused by walking in hot weather gave rise to an absorption of the active principles of tobacco through the skin, which led to his death.

PRESERVING CABBAGE IN WINTER.

I HAVE had considerable experience in this matter of keeping cabbages in the best condition possible over winter, as my business of seed raising has rendered this necessary; and the subject would yield quite a chapter; but at present let this suffice. Select a warm location, having a southerly exposure if practicable, under a cliff, where the snow will be likely to bank in winter; the soil should be light in character, and the ground well drained. Dig a trench six or eight inches in depth, and of width sufficient to take three rows of cabbages. Having stripped all but the last layer of leaves surrounding the heads, stand them in the trench in the same position in which they grew, crowding them as closely together as possible; then begin a second trench, or rather continue extending the width of the one already dug, throwing the earth taken from it directly on top of the cabbages already planted, and thus proceed with the whole lot to be buried. Do not fill up the open interval which remains between the bottom of the cabbages and the bottom of the trench; the air is a better non-conductor of heat than the earth, and hence the plants will be better protected with the space open. For this same reason loosely-headed cabbages require less covering than those more completely headed in; the air between the leaves protecting the former. Having completed the planting, tread the earth close against the last row planted, which will tend to keep them upright. Dig a small trench around the bed, for draining purposes, throwing the earth on the edges of the bed, as these are most liable to wash, and hence require extra protection. Have a lot of waste litter or sea-weed at hand, sufficient, if litter, to cover the bed four or five inches in depth; if sea-weed, three inches will be sufficient. After the ground is frozen about through to the cabbages, scatter over the litter or sea-weed as may be. If one has plenty of litter about, a foot of this will be a sufficient protection without the previous covering with soil. The Savoy varieties require less protection than the Drumhead. Six or eight inches of earth will protect as effectually as four feet, as I have proved by experiment.—*J. J. H. Gregory.*

CHICORY is now one of the American farm products, and is said to be superior to that imported. We have seen a quotation of "Illinois Chicory," at 11c. per pound. This is the roots, cut and dried, not roasted for use. The roots grow somewhat like parsnips, and about as great a yield per acre, and by the aid of a kiln, would be dried and prepared for market as easily as peaches.

THERE is a scarcity of firewood in Montreal, where the annual consumption of that article is one hundred and eighty thousand cords.

WHAT ENGLISH FARM LABORERS EAT.

AT the late meeting of the British Association, the most scientific body probably in the world, Dr. Edward Smith delivered an address on the food of the English farm laborer. He said: "When the husband leaves his home before the family has risen, he prepares tea himself, and eats bread and butter with it, or he takes his allowance of bread and bacon, or cold meat or cheese, which is to suffice for this *avant déjeuner* and his breakfast, and, perhaps, his dinner also, and obtains cider or beer at the farm, which he drinks at each meal. In Devon, Somerset, Dorset and Wilts the breakfast commonly consists of tea kettle broth, a milk broth or sop, or bread broth (consisting of bread, hot water, salt, pepper, and a little milk or a little fat of some kind, boiled together), or broth from bacon liquor, with condiments, eaten with or followed by bread and treacle, and with or without tea or coffee. Sometimes the children have the broth only, and the wife has tea, bread and fish; or the husband has bacon, bread and tea, the wife dry bread and tea, and the children milk; or all have porridge; or the husband alone has it, and the wife and children tea, bread and dripping; or the husband and children have it, and the wife has tea, bread and butter; or fried bacon and cabbage is provided; or the husband takes bread and butter only with him; or they all have broth, bread, bacon and butter; or the husband alone has broth, bread and a rasher of bacon; or all have tea and bread only; or the husband has bread and cheese, the family dry bread, and the infant has sop; or all have bread and cheese. In Northumberland, Cumberland and Westmoreland the husband, and sometimes the children, have milk and bread, or milk porridge, or milk and oatmeal pudding, whilst the others have coffee or tea, bread and butter or cheese. In Herts and Cambridgeshire, the husband has pork, bread and butter and tea; or pork, bread and beer; and the family tea, or milk, and bread and butter. In the other counties the breakfast consists of tea or coffee, with bread and butter, the children sometimes having milk and bread, or milk porridge. In a few cases bacon is added to the tea or coffee and bread."

This sounds frugal enough, but scarcely had the Doctor taken his seat when another physician, Dr. Crisp, brother of the well-known Suffolk farmer, rose and accused Dr. Smith of having given too favorable an account of the dietary of the English farm laborer and his family. He said: "The statement with regard to the dietary of the agricultural laborers of the country was so astonishing that he could not refrain from speaking upon the question. His grandfather and his father were farmers, he had three brothers who were farmers, and he himself, from his residence at Long Melford, had had oppor-

tunities of forming an opinion as to the condition of the agricultural laborer. The dietary as set down by the President, he boldly and positively stated, was not the dietary of the agricultural population of England, speaking more particularly of the eastern counties, Essex, Sussex and Norfolk. What does the agriculturist get for his labor? Possibly 8s., 10s. or 11s., or, it may be, 12s. or 14s. a week, and his children may make it up to 15s.; but in many instances the wages do not amount to more than 10s., and with that a man must support a wife and perhaps seven or eight children. Out of this 10s. or 12s. there would be 7s. or 8s. expended for flour. Where, then, were the tea and meat and other luxuries to come from? When he was a boy the custom of the eastern counties was for a number of young men to live in the farm house, but such a custom did not now prevail. There might be a groom kept in the house, and he would live well; but the generality of laborers were in their own cottages, and were not fed in the way stated. The rent was paid generally at harvest time. He would mention a dialogue he had had with a man last year in Suffolk, who had been hoeing turnips, and whom he found sitting under a hedge, eating bread and cheese. He said, 'You seem to enjoy your dinner.' The answer was, 'Oh, yes, pretty well, sir.' He next asked the man how often he got meat per week? On which he said, 'I now and then get a scrap of bacon on Sundays.' He asked again, 'Do you get beer?' To which the answer was, 'I have not had a glass for a fortnight.' He (Dr. Crisp) did not think that mattered much. He was a water drinker himself; but it was an indication of the existing system that prevailed in the agricultural counties."

HOW TO KEEP BUTTER.

MESSRS. EDITORS: In answer to an inquiry in your paper, for a brine to keep butter, I would reply, I have for years used a receipt given in Mrs. Cornelius's "Young Housekeeper's Friend," which by the by is a real friend.

After taking out as much butter as will last for a week or fortnight if the weather is cold, I take two quarts of water, one of clean fine salt, one pound of white sugar, and a tea-spoonful of saltpetre; when dissolved, lay a piece of white linen over the butter, (covering it closely around the edges,) and pour on part of this brine. Head up the firkin, and if it leaks set it in a wash tub and put in some more, driving down the hoops; every time butter is taken out close the firkin in this way. If the salt does not all dissolve in the brine, add a little more water. One recipe will do for 100 pounds of butter. With this recipe I have kept butter into July, in Brooklyn.

—E. J. E., in *New York Observer*.

SEED POTATOES.

EDS. GENESEE FARMER: Having seen several articles in the different volumes of the *Genesee Farmer*, about Seed Potatoes, I will venture a few notes thereon, giving my little experience on the subject. I was brought up in a section where we were taught that the seed ends of potatoes were the best for seed; the earliest and largest. I took medium sized potatoes, cut off the seed ends and planted together in one place, and the body of the potato in another—ground being equal—and the result was, that the seed potatoes were the first out of ground, and more in number of tops, while the body potatoes were later in coming up, but larger tops. The result at digging was *more* potatoes from the seed ends, but not so large, nor so many bushels from the same number of hills.

Again, take whole potatoes and plant the same of equal size and cut into two pieces—meaning fair sized—and the result will be in favor of the cut potatoes. This season being short of seed, I planted a bushel or so of very small "Orono's"—too small to eat—and they are equal in size to whole potatoes of larger dimensions, and turn out as well also. Therefore, if small potatoes will produce as well as the larger ones, and will not bring one-fourth as much, it is a result worth knowing.

I have made these suggestions that it may bring out experienced farmers on the question.

Poughkeepsie, N. Y., October, 1864.

E. FOLSOM.

COST OF STEAM PLOWING.

At a recent agricultural meeting in England, Mr. Taylor stated that he had used one of Fowler's steam plows for three years. It cost, with tackle and everything complete, £1,000. The first year there were so many breakages and interruptions, owing principally to the gross carelessness of the persons in charge of it, that the cost of plowing was very great. Now, however, its working was most satisfactory; the breakages were very few, and the work done was much greater than in previous years. Mr. Taylor said he would give the details in regard to the cost of plowing by steam. He first of all calculated interest on first cost at 5 per cent.; then put down for wear and tear 10 per cent.—making 15 per cent. upon £700; for he did not take the whole £1,000, the engine being employed three-tenths of its time in thrashing, chaff-cutting, sawing, grinding, &c., and therefore it was fair to reckon only seven-tenths. Fifteen per cent. on £700 came to £105 a year, being rather more, therefore, than what the Colonel stated. That divided by 100, the average number of days it worked in the year, gave about 22s. a day. For repairs of engine and tackle he put down 7s. 4d. a day; for coal, oil and tallow, 15s. 6d.;

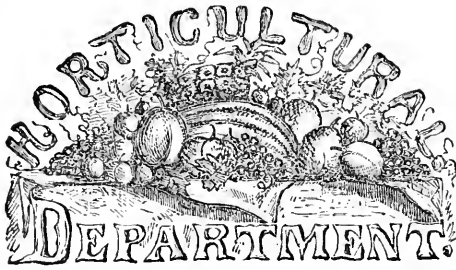
wages, 11s.; and water-cart, 7s., making a total expense per day of £3 2s. 10d. The daily average number of acres plowed had been eight, and the cost had therefore been 7s. 10d. per acre. Now he thought those who knew what sort of land it was, would know very well that it could not be plowed with horses in an average season for anything like the same sum. In fact, when he commenced farming he wanted more plowing than he could manage with his own horses, and therefore applied to a neighboring farmer for the use of some of his. The farmer at first consented to plow for him at 12s. per acre, but he very soon gave it up, and said he could not do it under 14s., and that he could better afford to have his horses remain idle than take less. Thus, as plowing on strong land cost 7s. 10d. an acre, and horse plowing 12s., there was difference in favor of the former of 4s. 2d. He thought that was a fair statement of the case.

TO KEEP TIRES ON WHEELS.—Hear what a practical man says on this subject: "I ironed a wagon some years ago, for my own use, and before putting on the tires I filled the fellys with linseed oil; and the tires have worn out and were never loose. I ironed a buggy for my own use seven years ago, and the tires are now as tight as when put on. My method of filling the fellys with oil is as follows: I use a long cast-iron oil heater, made for the purpose; the oil is brought to a boiling heat, the wheel is placed on a stick, so as to hang in the oil, each felly an hour, for a common sized felly. The timber should be dry, as green timber will not take oil. Care should be taken that the oil be not made hotter than a boiling heat, in order that the timber be not burnt. Timber filled with oil is not susceptible to water, and the timber is much more durable. I was amused some years ago, when I told a blacksmith how to keep the tires tight on wheels, by his telling me it was a profitable business to tighten tires, and the wagon maker will say it is profitable to him to make and repair wheels—but what will the farmer, who supports the wheelwright and smith, say?"

FIVE hundred cubic feet of timothy hay will weigh about a tun, varying, somewhat, according to the condition of the hay and the height of the stack or mow. It takes from 700 to 800 feet of clover hay to make a tun.

It is stated that in the first two years of the present war twenty-eight thousand walnut-trees were felled to supply a single European manufactory of gunstocks for the American market.

FLORA TEMPLE has recently been sold for \$8,000.



AMERICAN POMOLOGICAL SOCIETY.

(Continued from last number, page 318.)

WEDNESDAY NOON.

PEARS.

DOYENNE DU COMICE.

Dr. EDWARDS in the Chair.

HOVEY—This pear has been cultivated about Boston for some time. It has been said to be subject to blowing off the trees easily. It is a handsome grower, both on pear and quince. It is a large fruit and of excellent quality, and is considered one of the greatest acquisitions we have had from Europe in ten years.

BARRY—Inquired if it was equal to Doyenne Boussock.

HOVEY—Replied that it could not be classed with Doyenne Boussock, but it was fully equal to Beurre d'Anjou of the same class. When mature it is a pale yellow, with a fine reddish cheek.

FIELD—I wish to speak a good word for Doyenne du Comice. It is a fine, large pear, with a spicy flavor.

DOWNING—I agree with Mr. Hovey in his remarks about this pear, in every respect.

DE TONGRES.

HOVEY—De Tongres is cultivated around Boston by amateur cultivators. Mr. Wilder, myself, and some others, have been unfortunate with it. We have only fruited it this year; this arises from the fact that it is rather tender. In 1856 I received it from Le Roy, and the succeeding winter lost all my trees of it. My neighbors have fine specimens 6 or 8 feet high, bearing well. It has the fault of dropping its leaves rather early; it is a free, upright, vigorous grower; it drops its leaves early only in heavy soil. I think we shall find it one of the best pears we cultivate. It does very well on quince.

SMITH, of Geneva—De Tongres is a poor grower and very tender; it is a rich, handsome pear, but cannot be recommended for extensive cultivation.

HOUGHTON—I have 200 trees of it; it is one of the worst growers I have; the growth is very feeble, somewhat similar to Winter Nelis.

HOVEY—It requires a light, rich soil. I have not myself been able for twelve years to obtain specimens of it, but on light ground it is very productive and healthy.

DOWNING—I have fruited it three or four years; am much pleased with it, and think it a good amateur's pear; with me it is vigorous and healthy.

FIELD—De Tongres with me is healthy, productive

and fine; as to my soil, you can get an idea of it no better than to imagine the Desert of Sahara.

HOOKER—Have fruited De Tongres on rather light soil; although the fruit is very beautiful and of good quality, I concur with Mr. Houghton about its feebleness of growth; it is not a market pear. If this variety has been talked of long enough, I would like to hear about the Sheldon—here it is one of the very best.

SHELDON.

HOVEY—I am glad Mr. Hooker has brought forward this sort. We consider it the finest pear we have of the season; it is superior in growth, productiveness and quality.

MARSHALL—In Southern Ohio we have no better pear. —, Bloomington, Ill.—It is one of the best in Northern Illinois.

— —In the Valley of the Susquehanna, in Pennsylvania, it is very satisfactory.

MEAD—It is one of the best pears we have, and I hope it will be recommended for very general cultivation.

HOVEY—It may be well to remark that it does not grow well upon the quince.

BARRY—It does not grow at all on the quince.

HOVEY—It is one of the greatest bearers we have. Our soil is a heavy clay loam.

BARRY—It succeeds remarkably well double-worked.

THOMAS—I have succeeded well with it double-worked.

MEAD—Have grown it both on quince and on pear stock; on the pear stock it bears good crops, and on the quince not so much, but finer specimens.

ELLWANGER—I never knew a single one to grow on the quince, although we have budded hundreds.

NELSON, Ind.—Sheldon, although a little injured by the cold last year, was not so much so as some others.

BEURRE CLAIRGEAU.

BARRY—Beurre Clairgeau has been much planted and is very hardy, and I regard it as a very promising sort.

FIELD—It has every quality of a good market pear—very large, beautiful yellow and red color.

HOVEY—I am very glad to hear so good an account of Beurre Clairgeau; have thought from the first that it would prove a good pear; when the trees get age and the fruit is a little thinned out, it will prove a very good pear. Some small, poorly-grown specimens, without name, were some time since presented to the Massachusetts Horticultural Society, and it was thought to be Gray Doyenne. This is mentioned only to show the opinion that was formed of its quality. It is a strong grower, and has the habit of throwing out roots very freely from the pear stock when worked on the quince. It is a magnificent fruit—not equal to Sheldon.

HOUGHTON—I have probably given more attention to this than to any other pear. No pear at Philadelphia has been up and down so much as this. I have seen it in a great variety of circumstances. It is a very free grower; its foliage is strong, is early in the season, but likely to have red spots and drop very much; its quality, at Philadelphia, is very variable; I have expectations that on large standard trees it will perfect large crops.

SMITH—Beurre Clairgeau has been spoken of as a

very hardy tree, but I think this is a mistake; it is not more hardy than Bartlett.

ELLWANGER—I am astonished at Mr. Smith's statement. I have seen Bartletts winter-killed when Beurre Clairgeau was entirely uninjured.

BEURRE LANGELIER.

BARRY—This variety does not come into bearing very young; it is a good fall or early winter sort, of nearly first quality.

HOVEY—At Boston it has the defect of not coming into bearing until of great age; it is very impatient of the knife; on pear stocks without pruning it yields very large crops. I have come to the conclusion that Beurre Langelier is as great a bearer as any we have, but we must wait until it is fifteen or twenty years old. The fruit is spirited, juicy and vinous, ripens in January and February, and is as good a keeper as Glout Moreau.

THOMAS—A dwarf tree in my garden, six years old, hangs as full as a Louise Bonne de Jersey.

BONNE DES EZEES.

FIELD—It has given me much satisfaction; the fruit is a type of excellence.

BARRY—I don't like the cracked bark and unhealthy appearance of the tree; the fruit cracks, too, sometimes, but it is a very good pear.

DOYENNE D'ALENCON.

BERGEN—It is good in quality and a good keeper.

ELLWANGER—It grows better as the tree grows older; it is a good bearer, fine fruit, and a good keeper.

HOUGHTON—I have seen the fruit, and thought it a very useful, substantial winter pear.

BARRY—It is an excellent winter pear, very uniform and very good; keeps till March and April.

PARSONS—I would like to hear about Columbia.

COLUMBIA.

BARRY—This is a very good pear, but has one fault—that of dropping easily from the tree.

FIELD—Think it a second-rate pear.

HOVEY—I must say one good word for it—to be sure it blows off worse than any pear I ever saw yet; I think it a good pear, and one which will yet be more cultivated; it is not first quality, yet good.

Judge HOADLEY—I have known it twenty-five years, and consider it a first-rate table fruit; it is a fact it blows off easily, but the fallen pears ripen better than those of any other variety we have.

THOMAS—The Columbia is a fine bearer, smooth and fine; the only objection I have to it is that it is not good enough to eat.

STEVENS' GENESEE.

BERGEN—I would enquire about Stevens' Genesee; the tree does not do well with me.

BARRY—It is a native of this county and has been long in cultivation here, and has been regarded a valuable sort, but it rots badly at the core.

HOOKE—It is very variable—sometimes it is very fine, and again worthless.

BARRY—I would say that it is hardly ever picked early enough.

ANDREWS.

HOVEY—Andrews has recently been sent from France

as Beurre Odinot. We regard Andrews as one of our best pears.

Dr. WARDER—In Southern Ohio it is a great bearer, and a pear of fair quality and much liked.

PARRY—In New Jersey it is of fair quality, a good bearer and a pretty good pear.

BELLE LUCRATIVE.

BORT—I would like to hear about Belle Lucrative.

SMITH—A very fine pear indeed.

BARRY—A very great bearer.

FIELD—I never knew any one to say a word against it.

FROST—It bears young, is very hardy, and is an excellent pear.

BERGEN.

BERGEN—This pear is ripe in October, after Bartlett; is a very profitable market pear; it is a little later than Swan's Orange, but much superior to it; bears uniformly a fair crop.

BEURRE HARDY.

DOWNING—This is a very promising pear; I should not want to do without it.

FLEMISH BEAUTY.

NELSON—I would like to have double asterisks [**] placed in the catalogue for this variety, in Northern Indiana.

Dr. WARDER—In Southern Indiana it blows off, and is apt to rot at the core.

BORT—It rots at the core.

BATEHAM—I find that in Central Ohio it is not a beauty and does not color well.

Dr. WARDER—It is of variable quality; south of 40° latitude it is apt to be rough and colorless, but this year it is smooth and fine, and there is a large crop.

JAMINETTE.

HOUGHTON—This is a fine grower on quince; think it a valuable early winter pear.

ELLWANGER—It makes a most beautiful tree; it is late coming into bearing; from middle December to first of January it is an excellent market pear; not of first quality.

BARRY—When well grown it is good, and is one of the handsomest trees grown.

SMITH—It is valuable as a market pear—has a thick skin and bears carriage well.

HOVEY—About Boston it has gone out of cultivation, but there is no fault about the tree; it is a sweet pear, with a coarse skin; does not color up well; it will not compete with Columbia, Lawrence, and some others, although it is undoubtedly a very fair pear.

VICAR OF WINKFIELD.

HASKINS, of Pa.—Would like to hear of Vicar of Winkfield.

FIELD—I think it indispensable.

HOVEY—Can be grown everywhere, and when well ripened is a good pear.

WARDER—One quality it has, is not well understood—it is the quickest cooked pear there is; all that is necessary is to bring it to a boiling point.

BEADLE—I would like to know what the ladies should put with it to give it a flavor.

WARDER—A little sugar, in cooking.

BEADLE—I thought I had grown some fine speci-

mens, but they proved a total failure; whether this is due to soil, climate or ignorance, I cannot say, but they proved utterly worthless.

THOMAS—In warm, late falls they are pretty good.

DOWNING—I never saw one fit to eat in my life.

HOVEY—Mr. Cabot says that in France the Vicar was one of the best pears he found. In Boston market it sells as well as Glout Morecan, and is a really fine winter pear.

DOWNING—I ought to add that it is the best of all cooking pears I ever tried.

EXCELSIOR—AUGUSTA DANA.

HOVEY—Excelsior is a very fine pear; ripens time of Bartlett, and is very superior. Augusta Dana keeps until 15th of January, and is an immense bearer.

BELLE WILLIAMS.

BARRY—This is a new English pear; we have ripened it two winters; it is a good winter pear; keeps till January. It was originated on the same grounds as the Bartlett.

KINGSESSING.

HOOPES—This sort still retains its character—bears large crops of fruit of fine quality.

PARRY—It does well in New Jersey, both on quince and pear.

HOVEY—A valuable variety.

HOOKER—I coincide with Mr. Hovey; the fruit seems to grow in size with the age of the tree; the trees are similar in appearance to Stevens' Genesee; the fruit ripens here in October.

HOOPES—It ripens at this time (Sept. 15).

HOVEY—It never rots.

MANNING'S ELIZABETH.

DOWNING—It is only a first-rate amateur pear.

HOVEY—It is considered the best early summer pear we have, and sells for the highest price in market; ripens after Doyenne d'Ete and before Rostizer, and fills a place where we have nothing else.

KIRTLAND.

FIELD—It is entirely worthless, on account of rotting at core.

DOWNING—On young trees the fruit is handsome, but on older trees is not so very fine, as it is quite liable to rot.

THOMAS—As far as rotting is concerned, I agree with Mr. Downing, but I do not think so highly of it as he does.

HOOKER—It rots badly at the core, and I have given up all hopes of its ever being of any value.

HOVEY—It is not of high character, is a poor bearer, rots badly and is not desirable.

MARIE LOUISE.

FIELD—This pear improves much with age, and old trees produce fine specimens.

DOWNING—Some trees I am acquainted with, fifteen years old, produce fine specimens.

SMITH—On older trees I have fine specimens; it is melting, juicy and rich.

HOVEY—What has been said about time is right—we must give time to it to bring out its qualities.

OSWEGO BEURRE.

HOOKER—This variety, when introduced, was consid-

ered a great acquisition by those that liked a rich, vinous pear. It is an early and abundant bearer, sometimes cracks, and is not very attractive in appearance.

HOOPES—It bears a full crop every year, but never a perfect fruit.

THOMAS—It cracks worse than any other, and when it does well it is not worth eating.

NELSON—I agree with Mr. Thomas.

HOVEY—It is a great bearer, and I believe with judicious treatment it will prove a most valuable sort.

HOWELL.

BARRY—I think this is one of the most beautiful of our pears; ripens latter part of September; sometimes rots at core, but generally is as free from rot as any other sort; grows well on quince and bears freely.

THURSDAY AFTERNOCN.

PEACHES.

Dr. EDWARDS in the Chair.

E. W. Sylvester, Lyons, showed two seedling peaches, one of Crawford's Early and one of George IV.

Dr. Trimble, of N. J., showed some highly-colored peaches, attributing their high color to the presence of iron in the soil where they were grown.

BATEHAM—Hale's Early is the best of early peaches in Ohio; it is said to be so much earlier than any other good varieties, that something is now wanted to fill the interval; quality is first-rate, and trees healthy; it is ten days earlier than Troth's Early or Servate Early York.

MARSHALL, Massillon, O.—It is considered the best early peach we have; is fifteen days earlier than Early York; tree very stocky, fruits early and bears heavily; flavor is first-rate, and it is altogether desirable.

PARRY—I would corroborate all that has been said about this peach.

BEELER—I visited the peach districts in New Jersey on the 18th of August. They were then shipping Early York and Honest John. The fruit was deficient in flavor; Honest John was so deficient as hardly to be distinguishable by the growers themselves. All the orchards were overlaid, and the fruit inferior in size. They thought it would pay to thin them, but they had not time. In Delaware, peaches were generally on poor, sandy soil; the trees planted at a distance of 16 to 20 feet; some of the better cultivators thought 30 feet would be better; trees were generally branching from 3 to 4 feet from the ground. They ship the fruit in crates holding about two baskets. The orchards were always cultivated—i. e., they were plowed by going three bouts around each row of trees, and afterwards harrowed. It is a sure sign of Yellows to see water issuing out of a limb, or to see one limb ripening fruit before another. The limb that has thus ripened its fruit earlier than the rest of the tree, is cut out after the crop is gathered, and the next year the whole section of the tree from which the limb was taken ripens its fruit prematurely and is then removed, and the next year the remainder bears a crop, ripening it early, and then dies.

Dr. TRIMBLE—Almost the invariable rule in New Jersey is to cultivate the peach orchards with buck-wheat the first two or three years after planting.

THOMAS—As an evidence of the importance of cultivation in Western New York, I would state that by careful examination I have found that trees uncultivated will make but two or three inches of new wood in a season, while cultivated ones will make three or four feet. I have not tried the buckwheat plan, and in fact I have not much confidence in it for Western New York. I visited, a few years since, a large orchard in Northern Indiana, which contained 10 acres and 1,000 trees. There was a small crop that year in the country, but this orchard was well-laden, and the crop sold for more than \$5,000. This orchard had had clean cultivation from the beginning, while nearly all others in that part of the country were in grass.

BERGEN—I understand that growing buckwheat is less injurious than corn, or not cultivating at all—not that it is beneficial. I know something of the history of the Yellows. It made its appearance in Kings Co., on Long Island. My father saw the first peach trees affected by the Yellows. Up to that time Kings county supplied the largest amount of peaches for the New York market. Monmouth county, N. J., was the next point to which peach orchards were transferred, and the Yellows followed. Then other parts of New Jersey were selected, with like results, and then Delaware. There is now a new tract of land being cleared up, and thousands of acres planted to peaches. Where the disease first appeared in Kings county, twenty years ago, I planted an orchard, and scarcely got a peach before it was attacked by the Yellows. But it is much better now; we can get three, four or five crops before they are attacked.

MOODY—Sowing buckwheat is like sowing weeds; it will bother you, and you will lose half the growth of the trees. Clean cultivation is the right plan.

BEELER—The New Jersey people have borers in all their peach trees.

CURLED LEAF.

BERGEN—The great difficulty we have to contend with is curled leaf.

BEELER—I had thought this was a Western institution. It was discovered there several years since, and the general opinion is that it is caused by cold in the spring.

Dr. TRIMBLE—Cultivating with buckwheat is almost invariably adopted in New Jersey, even by the shrewdest cultivators, partly for killing weeds and partly for profit; the trees are very vigorous. I am almost entirely convinced that the cause of the curled leaf is an aphid, and if you will carefully examine you will find the scale of the aphid in the leaf. It is a very cowardly way to account for it by cold.

THOMAS—I have made careful microscopic investigations, and am convinced the cause of curled leaf is an internal fungus, like the rust in wheat.

BARRY—I am quite satisfied that the cause is owing to sudden changes in the weather, and as one evidence I can say that in peach houses it never makes its appearance. Last spring, by opening some sash at an improper time in one peach house, some plants were exposed to cold drafts, and, as a result, affected with curled leaf. I think, with Mr. Thomas, that it is a fungus, but is produced by cold.

RASPBERRIES.

PHILADELPHIA.

PARRY—This is a native from Philadelphia county; it has been cultivated a number of years, but it is only a few years since it was introduced. Its striking features are perfect hardiness, being never injured either by the severe heat of summer or cold of winter. I have it in all situations and on a variety of soils, from sand to heavy clay; have never protected it in any way; it will stand as much exposure as our apple trees; it has a smooth, purple cane, is a strong upright grower and does not require staking, and will yield more than any other sort I have ever grown; the color is red—darker than Red Antwerp; it is of large size and sufficiently hardy to bear carriage well. We cannot succeed in our vicinity in growing the Antwerps, Fastolf, Orange and others. The Philadelphia will yield more fruit to the acre than the strawberry, with one-half the labor. I have taken some pains to find the history of this fruit. A Mr. F. Dedaker found it growing wild 26 years ago and planted it in his garden, where it grew for many years without attracting particular notice. A few years ago the Pennsylvania Horticultural Society, having received it at their exhibitions several times, fixed upon it the name which it now bears.

KNOX—It seems strange that for 26 years a raspberry of such merits as are claimed for this should be in cultivation and not be discovered by some one who would make it known. I am inclined to think I have had it for several years. It is true, it is hardy and produces large crops of fruit, but I think it is not much of an acquisition. Where the Orange, Franconia, Hornet, &c., will not grow, it will do to plant Philadelphia. I think it is the variety long known as the Purple Cane.

BERGEN—When I first knew anything about raspberry culture, the Purple Cane was the only kind sent to the New York market. About 40 years ago, a raspberry was introduced which answered the description of the one Mr. Parry speaks of, with the exception of producing many canes.

KNOX—There are three favorite varieties of raspberries—Brinckle's Orange, Franconia, and the improved Black Cap—which I have faith in. Brinckle's Orange, in flavor, is the perfection of raspberries. I would also add five new French varieties—Hornet, Pilate, Imperial, Souchette and Jonet.

STRAWBERRIES.

KNOX—Especially in strawberries is it necessary to bear in mind that locality has a great influence on the habits of varieties, and also that varieties of strawberries will run out. My favorite, Triomphe de Gand, shows no sign of losing its high character, and I get many letters from various parts of the country speaking of it in high terms. It does not yield as much as Wilson's Albany, but bears a much better price—I receive fifty cents a quart for it in New York, at wholesale. Wilson's Albany is very valuable for certain purposes; the Pittsburgh people use nothing but this sort for canning; I would not now plant it for table. For early sorts I would select Baltimore Scarlet, Burr's New Pine, Jenny Lind and Golden Seeded. The Golden Seeded is most profitable of all, but not quite so early

as Jenny Lind,—for medium varieties, Triomphe de Gand and Wilson's Albany—Fillmore also is an excellent variety, and has been strangely overlooked. With Russell's Prolific I am much pleased. For a late variety I am particularly partial to Trollope's Victoria.

RUSSELL'S PROLIFIC.

HOOKER—This sort has shown itself very productive—it is of large size, handsome, and of good quality, perhaps best. It is not very firm and will probably prove more profitable for home than distant market. It is a pistulate variety and requires some staminate sort near it.

PARRY—In New Jersey, Russell's has given entire satisfaction when planted with staminate sorts. In competition with other varieties at the exhibitions of the Pennsylvania Horticultural Society at Philadelphia, it has in every case taken the premium. Wilson's Albany, is a good fertilizer to plant with.

PARSONS—From what I have seen of it on Long Island, I have a very favorable impression of it.

ELLWANGER—Would ask if the Buffalo has not proved identical with it.

HOOKER—I have fruited them together and think they are not the same.

KNOX—I think there is no more profitable strawberry than Russell's. The Triomphe de Gand has not proved a success in Northern Pennsylvania.

PARRY—Triomphe de Gand does not succeed with us—do not know a plantation that has yielded a profit.

CRANBERRY.

PARRY—Cranberry culture is of considerable importance in New Jersey. As a general result have found it does not succeed well on upland as a cultivated crop—the best crops are grown on low, poor ground, always moist—bottom lands or old ponds drawn off produce fruit abundantly. The first and second year after planting, the plants are cultivated, but after that they occupy the whole ground. It is considered necessary to have water let on in the spring to retard vegetation until fear of frost is past. In such situations this crop is always a success—have seen enormous crops. On cultivated lands it is **not** as profitable as the strawberry.

BATEHAM—I have heard of many attempts at the west in cultivating cranberries without success, and have come to the conclusion that it is a humbug.

TROWBRIDGE—The most successful cultivation I have seen is on such land as Mr. Parry has described.

HOVEY—It has been thought that on Cape Cod nothing could be produced but sand. It appears, however, to be more profitable than other lands by cultivating cranberries. As to growing cranberries on upland, as a profitable crop, I think no one will claim it—in such situations sufficient can be grown for use. In suitable situations I have known crops to yield as high as \$1000 per acre. [To be continued.]

GRAPES FOR COLD VINERY.—The Eastern Pennsylvania Fruit Growers, at their meeting recently, took a vote on the best varieties of twenty vines for a cold grapery, with the following results: Black Hamburg, 8; Bowdow Muscat, 4; White Frontignac, 2; Grizzly Frontignac, 2; Black Prince, 2; Lady Downe's Seedling, 1; White Syrian, 1.

NOVEMBER'S WORK IN THE GARDEN.

If the soil of the garden is rather heavy, it can be greatly improved, and rendered capable of earlier working in the spring, by ridging it this month, either with plow or spade.

A greater surface is thus exposed to the action of the frost of winter, and the sun and air of early spring. Consequently it is warm and dry earlier than if left flat. All that will be necessary to prepare it for the reception of the seed, will be to level down the ridges.

Very light soil is not benefitted by fall ridging.

Asparagus.—The asparagus bed should have a good dressing of manure, and a light dressing of salt—unless done last month. November is a good time to sow seed to produce roots next year, but I think spring is the better time for transplanting the roots.

Beets.—In gathering beets or any other roots, if you find any models—just such roots as you would like to grow—lay them aside to set out next Spring for seed.

Such a course pursued from year to year, would result in a great improvement of the root crop.

Cabbage.—Should be pulled up by the roots in the earlier part of the month, and such as are required for winter use hung up in the cellar, or packed away in such an out door cellar as was described in the September number of the *Farmer*. Those that are to be kept over until spring, may be buried in a trench—head downwards—just wide and deep enough to receive the largest heads, which should rest on a slab or rail—the stalks and roots to be nearly or quite covered with dirt. If trenched in dry soil, they will come out in good condition in the spring.

Celery.—Earth up until there is danger of hard freezing, when a quantity of the plants should be taken up, and set out in a box in the cellar mixed with dirt. A good many plants can be set in a small box, as they can be set quite close together, with but a thin partition of dirt between them. The balance can be trenched out in the garden in trenches six or eight inches wide, and one foot deep. Pack in the plants as closely together as possible—throw up a ridge so as nearly to cover the tops, and cover all with straw or litter.

Onions.—Planted or sown in September should receive a light covering of straw.

Rhubarb.—Large roots should be subdivided and reset, and covered with manure.

Spinach.—Should receive a covering to protect from freezing.

SMALL FRUITS.

Now is the time to increase next year's crop of small fruits by a liberal surface dressing of fine ma-

nure. It will at the same time protect the roots from the bad effects of sudden changes in temperature.

Grapes.—However hardy, will produce larger crops next year, if taken down from their trellis and slightly covered.

Strawberries.—Should be lightly covered.

P. C. R.

THE VEGETABLE GARDEN.

Roots of most kinds, such as carrots, beets, etc., should be taken up before the frost is severe. They all keep best packed in the sand in the open air, but it is too inconvenient to get at them in winter; hence cellars are employed to preserve them in. Cellars for this purpose should be cool, say with a temperature of about 45°, and not at all dry. It is not meant that it should be damp, as the roots will become rotten, but it must be moist enough to prevent shrivelling.

Cabbages can be preserved in such a cellar, though most prefer them in the open air. One way is to pack them closely together with their roots uppermost, and then cover them with soil, on which straw or litter is thrown to keep them from freezing. By being packed this way, the water cannot get into the hearts, which is one of the chief causes of their rotting.

Broccoli and Endive may be taken up with balls of earth, and set in cool cellars closely together, and they will grow sufficiently—the former to produce good heads, and the latter to blanch beautifully all through the winter.

Asparagus beds should be cleaned, by having the old stems cut off and the soils from the alley ways dug out and thrown over the beds. It keeps the frost from the roots, and thus permits them to grow and lay up matter all winter for next spring's growth. Very early in spring the soil should be raked back into the alleys, so as to leave the roots but a few inches under the soil, as the nearer they are to the sun's rays, the earlier will the crop be.—*Gardeners' Monthly*.

CLEANING TOMATO AND OTHER SEEDS.—To clean tomato and cucumber seeds, and others having a pulp attached, says a correspondent of the *American Agriculturist*: "Put the seeds, pulp and all, just as they come from the vegetable, into a bowl, cup or other earthenware dish, and set them in a cool place for a week or ten days, when a thick mould will appear on top, and a thin watery substance beneath the mould. Then pour water into the vessel, stir up the contents, and the mould and other impurities can be poured off, and the seeds will be found perfectly clean and free from pulp." Having tried this two years, the writer knows it does not injure the germinating properties of the seeds, and is the easiest way to remove the pulp.

FRUIT GARDEN.

SOMETIMES fruit trees are unproductive from other causes than poverty of the soil, or neglect of the orchardist. They often grow too luxuriantly to bear well. In this case root-pruning is very effectual, and is performed by digging a circle around the tree, with the circle made close to the trunk of the tree. A fifteen year old tree, for instance, may be encircled at five feet from the trunk. No rule can be laid down for this; judgment must be exercised. If cut too close, the tree may be stunted for years, and if too far, it will not be effective. The aim should be to reduce the roots about one-third.

Established orchards, on thin or impoverished soil may be renovated in the following manner: If a tree has been planted, say fifteen years, and attained the size we might expect in that time,—get, say ten feet from the trunk, and dig a circle two feet deep all around it, and fill in with a good compost; the effect the next season will be quite marked. If the tree is older or younger, the distance to start with the circle from the trunk will of course be proportionate. A top-dressing of manure on impoverished orchards will be of great assistance, as well as vigorous pruning out of all weak or stunted branches. Moss and old bark should be also scraped off, and if the trunk and main branches can be washed with a mixture of sulphur and soft soap, much advantage will follow.—*Gardeners' Monthly*.

TO PRESERVE FRUIT FROM INSECTS.—"Muscat" writes to the *London Times* on this subject:—"The following remedy, first invented by a near neighbor and friend, the late Rev. W. Kirby, will be found efficient: A hand glass, commonly used by gardeners (a square one is the best), is the instrument to be used. This has to be tightly covered at the bottom with thick white paper, varnished to resist the wet. A circular hole, six and a half inches in diameter, is then cut in the center of the paper, and the glass is placed on three bricks over a plate filled with beer, sugar, and a little rum, a moderate distance from the infested spot. The effect is magical; in a few hours the glass is crammed with wasps, hornets, and flies (bees will seldom enter), which, having tasted the sweets, fly upwards to the light. A common sulphur match, made by dipping brown paper into melted brimstone, will destroy thousands. The constant hum of insect life inside will attract all the marauders from the fruit trees to the glass."

THE *Newark Daily* says:—Mr. James Loyce has shown us a monster pear, raised on a standard tree in his garden, weighing *two and a half pounds*, and measuring fifteen and a half inches in circumference and twenty inches around the length. Several other pears weighing from a half to over a pound each grew upon the same tree.

Miscellaneous.

THE GRAVE-DIGGER.

"Old man! old man! for whom digg'st thou this grave?"
I asked, as I walked along;
For I saw in the heart of London streets
A dark and busy throng.

'Twas a strange wild deed! but a wilder wish
Of a parted soul, to lie
'Midst the troubled numbers of living men,
Who would pass him idly by!

So I said, "Old man, for whom digg'st thou this grave,
In the heart of London town?"
And the deep-toned voice of the digger replied,
"Ve're a laying a gas-pipe down!"

DONALD NOT IN A HURRY.—Many years ago, when those who were condemned to suffer death by the law had more choice than they have now of the particular tree upon which they should be hanged, a Highlander was sentenced to death for some crime or other of which he had been found guilty. The Judge, after passing sentence, said, addressing the prisoner, "Donald, it only remains for you to choose the tree upon which you are to be hanged." "Well, well," said Donald, "if her nainsel maun be hanged, she be in no way particular; but for a' that her nainsel will just choose a groser-bush" [gooseberry bush.] The Judge whereupon remonstrated with him, saying, "It would not be large enough." "Oeh!" said Donald," she be in no hurry; she will just wait till it grows."

NO CHANCE OF A CHANGE FOR DOUGALD.—In a Highland village, many years ago, the wife of Donald More was taken very ill, and the whisky (the Highlander's cure-all) not having, in this case, had the desired effect, she died. Soon after, the news of her death spread over the village where one Dougald Mac Tavish was found by his neighbors, giving vent to extreme grief, in a manner which surprised not a few of them; and on questioning Dougald as to the cause of such demonstrations, he answered: "There's Donald More's wife's dead." "Well," said they, "what about that; she was no relation of yours—why should that affect you?" "Oeh, oeh!" said Dougald; "everybody is getting a change but me."

MUFFINS AND RAGAMUFFINS.—Dr. Thompson, a celebrated physician in his day, and equally remarkable for the slovenliness of his person, could not endure the sight of muffins, and, in his medical capacity, always spoke of them as very unwholesome. On his breakfasting once at Lord Melcombe's, when Garrick was present, a plate of muffins was introduced, when the doctor grew outrageous, and vehemently called out, "Take away the muffins!" "No, no," said Garrick, seizing the plate, "take away the ragamuffins."

A SEVERE CRITIC.—Jones and Brown were talking of a young clergyman, whose preaching they had heard that day. The sermon was very poor. "What do you think of him?" inquired Brown. "I think," said Jones, "he did much better two years ago." "Why, he didn't preach at all then," said Brown. "True," replied Jones; "that is what I mean."

HOW STATUES ARE MADE.

A CORRESPONDENT of the London *Reader* gives the following details regarding the production of statues: The sculptor, having designed a figure, first makes a sketch of it in clay a few inches only in height. When he has satisfied himself with the general attitude, a cast is taken of his sketch, and from it a model in clay is prepared of the full size he designs for his statue, whether half the natural height, or life-size, or colossal. The process of burning the clay, as it is called, upon the strong iron *armatura* or skeleton on which it stands on its pedestal, and the bending and fixing this *armatura* into the form of the limbs, constitute a work of vast labor of a purely manual sort, for whose performance all artists able to afford it employ the skilled workmen to be obtained in Rome. The rough clay, rudely assuming the shape of the intended statue, then passes into the sculptor's hands and undergoes his most elaborate manipulation, by which it is reduced (generally after the labor of several months) to the precise and perfectly-finished form he desires should hereafter appear in marble. This done, the *formatore* takes a cast of the whole and the clay is destroyed. From this last plaster cast again, in due time the marble is hewn by three successive workmen. The first gives it rough outline, the second brings it by rule and compass to close resemblance with the cast, and the third finishes it to perfection.

PETER THE GREAT when at Saardam wished to hear a rather famous preacher. The latter consented to preach before the Czar. Having ascended the pulpit, he said, with solemnity and dignity, "Think well; speak well; and act well. Amen." Luther's counsel to a candidate was contained in these words: "Go boldly into the pulpit, open your mouth like a man, and be brief."

PAT AGAIN.—An Hibernian was reproved by an officer for daring to whistle in the ranks while going on duty. Just as the officer spoke, one of the enemy's balls came whistling over the ravine. Pat cocked his eye toward it, and quietly said, "There goes a boy on his duty, and by Jabers, hear how he whistles!"

ARTFUL.—An Irishwoman called upon an apothecary with a sick infant; he gave her a powder, of which she was to give the sick child as much as she could hold on a sixpence. The woman said, "Pr'aps yer honor will lend me the sixpence, for I haven't one at all, at all."

A LADY of somewhat dignified demeanor, having lost her way, said to an urchin in the street, "Boy, I want to go to Bond street." "Well, marm," he replied, coolly walking on, "why don't you go there?"

FOOTE, praising the hospitality of the Irish after one of his trips to the sister kingdom, a gentleman asked him if he had ever been at Cork. "No, sir," said Foote, "but I have seen many drawings of it."

WHY is a pig the most provident of animals? Because he always carries a spare-rib or two about him.

Ladies' Department.

MISTAKES IN THE TREATMENT OF SERVANTS.

Mrs. STOWE, in her sensible "House and Home Papers," in the *Atlantic Monthly*, says:

"A vast deal of trouble among servants arises from impertinent interferences and petty tyrannical exactions on the part of employers. Now the authority of the master and mistress of a house in regard to their domestics extends simply to the things they have contracted to do and the hours during which they have contracted to serve; otherwise than this, they have no more right to interfere with them in the disposal of their time than with any mechanic whom they employ. They have, indeed, a right to regulate the hours of their own household, and servants can choose between conformity to those hours and the loss of their situation; but, within reasonable limits, their right to come and go at their own discretion, in their own time, should be unquestioned.

"As to the terms of social intercourse, it seems somehow to be settled in the minds of many employers that their servants owe them and their family more respect than they and the family owe to the servants. But do they? What is the relation of servant to employer in a Democratic country? Precisely that of a person who for money performs any kind of service for you. The carpenter comes into your house to put up a set of shelves,—the cook comes into your kitchen to cook your dinner. You never think that the carpenter owes you any more respect than you owe to him because he is in your house doing your behests; he is your fellow-citizen, you treat him with respect, you expect to be treated with respect by him. You have a claim on him that he shall do your work according to your directions,—no more. Now I apprehend that there is a very common notion as to the position and rights of servants which is quite different from this. It is not a common feeling that a servant is one who may be treated with a degree of freedom by every member of the family which he or she may not return? Do not people feel at liberty to question servants about their private affairs, to comment on their dress and appearance, in a manner which they would feel to be an impertinence, if reciprocated? Do not they feel at liberty to express dissatisfaction with their performances in rude and unceremonious terms, to reprove them in the presence of company, while yet they require that the dissatisfaction of servants shall be expressed only in terms of respect? A woman would not feel herself at liberty to talk to her milliner or her dress-maker in language as devoid of consideration as she will employ towards her cook or chambermaid. Yet both are rendering her a service which she pays for in money, and one is no more made her inferior thereby than the other. Both have an equal right to be treated with courtesy. The master and mistress of a house have a right to require respectful treatment from all whom their roof shelters; but they have no more right to exact it of servants than of every guest and every child, and they themselves owe it as much to servants as to guests."

FASHIONS FOR AUTUMN.

THERE has been a very decided change in bonnets this fall. They are now quite small and with scarcely any cape—in some cases none at all. *Godey* has in the October number an engraving of one of these curtainless bonnets. Nearly all are made with soft crowns, though not full and hanging like the old fashioned cap crowns. Indeed the more a bonnet resembles a dress cap the more stylish is it. The trimming is put on the crown as well as on the front—both styles seem equally in favor. Velvet is now so exceedingly expensive that very few hats are made of that material. Silk and felt will be worn more now than ever. Feathers, too, are extremely rare, though when worn are valued proportionately to their price, which is enormous. A velvet hat with feathers which costs only thirty dollars is not supposed to be of the best material. In cloaks there is but little change. Saeques—close fitting or loose—are still worn. Short, full circles always look well, and the long water-proof cloak is seen as much as ever. Tartan plaid cloaks are very much admired; but the light colored plaids are not used for the street. A new style of trimming the saeque is with bands of velvet, studded with jet or steel buttons, arranged to simulate a coat. A slight variation in this style is putting the trimming on square at the bottom and straight at the sides, commencing just at the side seam of the saeque, making the bottom about the same width to the top. In Paris, a saeque precisely in the form of a swallow-tailed coat is worn, but here they have found but little favor. Dresses are trimmed with flat trimmings more than with ruffles or fluting—except alpacas, which are still worn with fluted ruffles. The petticoat should be as nearly as possible the same color as the dress. The latest style of belt is quite wide and shaped to the figure. These are worn with colossal buckles of steel, felt or gilt. These are worn even with the coatee waist, and with the Empresses dresses, which are made like a basquine, waist and skirt all in one piece. Without drawings, it is almost impossible to give any idea of the coat-shaped waists—some of them are very elegant. French calicos are now so expensive that they are quite stylish, and make very handsome morning dresses. Grey and black will be much patronized for full suits. Square buttons, dice shaped, are a novelty, and are well received.

TO WARM POTATOES.—Potatoes are nicely done in the following way: Par-boil as many potatoes as are needed; let them lie till the next morning, then cut them in small squares; add to them cream or milk, enough to make them more than moist, with a little butter, and pepper and salt. Place on the fire, cover them, and stir gently at times.

ONION PICKLE.—In November, take well dried onions, of a good shape, small and round, peel them and throw them into salt and water. Let them remain there a few days; drain them, put them in a jar and pour over them spiced vinegar.



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WE have not heard a single complaint in regard to the advance in the price of the GENESEE FARMER. All our readers doubtless know that paper has advanced enormously—vastly more than the advance in the price of the FARMER. We shall spare no labor or expense to make the GENESEE FARMER worthy of the continued good will of its old friends. There never was a time when good agriculture was of such vital importance to the well-being of the Nation as the present, and there can be no doubt that the increased circulation of agricultural journals will do much to stimulate farmers to cultivate their land more thoroughly and raise larger crops, and thus enhance our ability to sustain the Government in its efforts to maintain our national existence. Those who think the GENESEE FARMER is doing anything to favor such a result will, we are sure, do all they can to increase its circulation among their friends and neighbors. We have no paid agents, and depend entirely on the voluntary efforts of our subscribers to keep up and enlarge its subscription list. We endeavor to make a good, practical farmers' paper, and publish it at as low a price as it can possibly be afforded without absolute loss. We hope every subscriber will view the matter in its true light, and not only promptly renew their own subscription but make a special effort at this time to induce their neighbors to try the GENESEE FARMER for a year.

WE would call the attention of those in want of agricultural books to the advertisement of William Wood & Co., of New York, in this number of the Farmer.

Notes on the Weather from September 15th to October 16th, 1864.

THE first half of September was 3° below the general average, or as 60.8° to 63.8°; but the last half was as 57.7° to 56.9°; and of the month the mean was 59.3, while the general average was 60.4°. The hottest noon of the month was 80° on the 23d, and the coldest morning was 42° on the 17th. The rain of the month was 1.33 inches—a small amount.

A slight frost occurred on the 17th, doing little damage. On the evening of the 26th, between 10½ and 11 o'clock, we had a thunder shower, not of much rain, but its lightning and thunder most terrific—the earth seeming to rock, and the buildings trembled and shook. It gave us the roar of the elements. The next day was quite warm, and 76° at noon. A good month. No equinoctial this September.

OCTOBER began with rather unpleasant weather, and in the first half has continued so to be. The mean heat was 49.2°, and the general average 51.3°. We had some rain on ten days, but little on two of them, and the rain fallen was 1.46 inch. Rain in the evening of the 8th was attended with snow, and a half-inch snow covered roofs, and plank-walks, and the grass on the morning of the 9th. It had melted before noon. The only clear all day was the 15th. In the full of the moon, the evenings of the 14th and 15th were splendid. Frost on the 14th, and hard frost on the 15th.

The autumnal variegated foliage adds magnificence to the green carpeting of the earth. The products of the earth are mature, and the fall harvest is good. The potato crop is said to be abundant. A kind and benignant Providence rules over all.

The Markets.

SINCE our report last month Gold has advanced from 190 to 216. Wheat has advanced 25 cents per bushel. In this city choice White Wheat is very scarce and it has advanced more than Red Wheat. The latter brings \$2 per bushel. Beans are lower, ranging from \$1 to \$1.60 per bushel. Potatoes are also lower, selling at about 75 cents per bushel. Corn has advanced 5 cents per bushel; it brings \$1.45 to \$1.50. Oats have also advanced 5 cents, selling for 75c. to 80c. Butter has advanced 10 cents per pound; a good article brings 45c. to 50c. Eggs are also high; 30c. per dozen. Good Timothy Hay, \$20@\$23 per ton. Old Pork is very scarce; it is almost impossible to find a barrel in this city; it has again advanced, and is now quoted at \$44 per barrel. Dressed Hogs are coming in slowly and bring from 13 to 15 cents per pound, according to quality. With Pork at \$44 per barrel, Dressed Hogs should command a higher price. The panic in commercial and financial circles has abated. In New York the Money market is easier, with large amounts seeking temporary investment; but in the interior cities, currency is still very scarce, and millers, produce dealers and others find it difficult to obtain funds necessary to carry on their business. With an easy Money market, which we shall soon have, prices would rapidly advance.

It may be interesting to look back at the old files of the *Genesee Farmer* to ascertain the price of our leading crops at this season, in New York, before and since the war:

White Wheat.....	\$1.35 @ \$1.45	1859
Red Wheat.....	1.10 @ 1.15	1860
Corn.....	1.00 @ 1.03	1861
Rye.....	88 @ 90	1862
Barley.....	78 @ 83	1863
Oats.....	88 @ 44	1864
Barna.....	80 @ 90	
Peas.....	75 @ 80	
Butter.....	12 @ 25	
Chesse.....	8 @ 11	
Potatoes.....	1 1/2 @ 1.75	
Lye Hogs.....	5 @ 6	
Wool.....	40 @ 62 1/2	
Beef Cattle.....	6 1/2 @ 10	

and the decline has been far less on such animals than on inferior cattle. At the last market (Oct. 25) prices ranged from 7c. to 13c. per lb., ordinary to good Cattle selling at 13@16 1/2c., while inferior animals sold as low as 7c.

Good Sheep bring from 8c. to 8 1/2c. per lb. live weight. Good Lambs bring 10c. per lb., live weight. Swine are in demand at 13c. per lb., live weight, for good corn-fed hogs, while lean and half-fat ones sell for 12c., 11c., and even as low as 10c. per lb.

PREMIUMS! PREMIUMS! PREMIUMS!

To those who are willing to aid us in increasing the circulation of the *Genesee Farmer* at this time we offer the following premiums:

1. To any person sending us one new subscriber during the present month at one dollar a year we will send pre-paid by return mail a copy of the *Rural Annual and Horticultural Directory* for 1860.
2. To any person sending us three subscribers at one dollar each we will send pre-paid by return mail a copy of *Miner's Domestic Poultry Book*.
3. To any person sending us five subscribers at one dollar each we will send pre-paid by return mail a copy of *Emerson & Flint's Manual of Agriculture*, or, if preferred, a copy of *Rodgers' Scientific Agriculture*.
4. To any person sending us six subscribers at one dollar each we will send pre-paid by return mail a copy of *Everybody's Lawyer*, or the *Horse and his Diseases*.
5. To any person sending us eight subscribers at one dollar each we will send pre-paid by return mail a complete set of the *Rural Annual and Horticultural Directory*—nine volumes.
6. To any person sending us twenty-five subscribers at one dollar each we will send pre-paid by express a complete set of the bound volumes of the *Genesee Farmer* for the years 1859-60-61-62-63.

As an inducement to subscribe at this time we shall send the remaining numbers of the *Genesee Farmer* for this year, together with the whole of the next volume, to all who subscribe during the present month.

No Club Rates.

PAPER continues so high that we can not furnish the GENESEE FARMER for less than one dollar a year. Should it decline before the end of the year, we shall offer the FARMER at a lower rate in large clubs. But there is little prospect of such a decline. It is much more likely to advance, and in this case we shall be compelled to advance also. Farmers are reasonable people, and will, we are sure, acquiesce in the justice of these terms. At the price of the FARMER this year we lose money on every paper sent out. One of our contemporaries has reduced the size of his paper after getting pay in advance, but we do not propose to do anything of the kind. It is hardly honest. We think our readers would prefer to pay a fair price and be sure of getting what they pay for.

The greatest advance, it will be seen, is in Fat Hogs. They are now three times as high as they were in 1861, and more than twice as high as at this time last year. Beef Cattle, especially those of good quality, have also advanced materially, but by no means equal to the advance in gold. Inferior Cattle are now only half a cent per lb. higher than they were at this time in 1859. In gold, everything, except Hogs and Butter, is very low. Wool, in the face of largely increased duties and a scarcity of cotton, is yet so low that it must advance 30 cents per lb. to bring it up to the price obtained in 1859 and 1860.

For the last two or three weeks the price of Beef Cattle in New York has been on the decline. The drouth of the past summer, and the scarcity of hay and other fodder, coupled with the high price of corn in the West, compels farmers to dispose of large numbers of cattle in a half-fatted condition. The markets have been greatly overstocked, and prices have declined as much as 2 cents per lb. Prime Beef Cattle are scarce,

THE average number of horses kept by the farmers of this State is one horse to each twenty-seven acres.

Book Notices.

GODEY'S LADY'S BOOK. LOUIS A. GODEY: Philadelphia.

Notwithstanding the high price of all printing materials, Mr Godey supplies his subscribers as liberally as ever with fashion plates, patterns for fancy work and embroidery, and with the usual supply of interesting tales and valuable receipts. Indeed, this book is most wonderful in its variety, and in the amount of information useful and interesting in the family, which it contains. In the November number there is a colored pattern for an embroidered dressing gown, a fine steel engraving—"The Farm House Porch"—a large colored fashion plate, containing six figures, besides seven other full-length figures uncolored, and thirty engravings in connection with the work department, and "Novelties for November." There is, too, a design for an ornamental cottage, with the plans of the first and second stories.

There have been during the year some excellent drawing lessons, and very fine models for slate and pencil sketches, well worth the subscription price. The original music is another attraction.

Subscription, \$3.00 a year. In clubs of eleven an extra copy is given to the person sending the club, making twelve copies for \$27.50.

THE TAILOR BOY. J. E. TILTON & Co.: Boston.

This is one of a series of little books which are being published by this firm. The scene is laid in Newbern, N. C., long before the rebellion, and gives an account of the struggles of a poor white boy against the tyranny of a slave-holding aristocracy. There is one fault—to us a great one—in the construction of the plot. A slave brings to the hero a letter of his master's which he suspects contains an offer from a dealer to purchase his sister. He reads it, and then aids the sister to escape. Of course the tailor boy is intended as a model for youth who may peruse his history; and as reading other persons letters is certainly dishonorable, it would have been very much better to have constructed the plot without this incident.

ATLANTIC MONTHLY. TICKNOR & FIELDS: Boston.

No words of commendation from us to our readers are necessary to make this best of American periodicals favorably known to them. Its contributors are among the best writers in our country, and through its pages more than one have won reputation. We need not say that its politics are thoroughly Union. Each month a good deal of space is given to well-written and well-considered articles on political subjects, and though generally taking the most extreme views, they are interesting even to those who do not fully sympathize in all the sentiments which they express. Mrs. Stowe's "House and Home Papers" are exceedingly interesting, and the series of papers by Colonel Higginson—"Leaves from an Officer's Journal"—promise to be a very attractive feature of the forthcoming numbers. There has been a change in the terms of subscription. Single copies \$4.00 per year; ten copies for \$30.00, and twenty-one copies for \$60.00.

THE LONDON QUARTERLY REVIEW—THE WESTMINSTER REVIEW—THE EDINBURGH REVIEW—THE NORTH BRITISH REVIEW. New York: LEONARD SCOTT & Co. American Edition.

These Quarterlies have a world-wide reputation. They present, each year, a vast amount of well-digested learning, good criticism and original thought. Essay writing demands a mental cultivation of a different order from anything that our comparatively new country can produce. While we can give the world fine poetry, admirable works of fiction, histories as fascinating as novels, and scientific works of great value, we can not write essays—these we must import. This is undoubtedly due, in part, to the system which is adopted in the English universities of an exceedingly high standard of scholarship for the few, and of fellowships which give their possessors leisure and opportunities for the most thorough culture. We hope that the day is not far distant when our leading colleges will in these points, as

they have now in others, become the equals of the English universities. In the mean time we have to go abroad for our essays, and there are none better than those published in "the Quarterlies." To every family living in the country these periodicals are peculiarly a necessity. Away from cities, which are more or less centers of culture, the style of these essays and their ideas keep one posted in the ways of thinking of people who are in the world; render all the new discoveries in science, the various topics in literature, the fashion of which is constantly changing, in some degree familiar. We none of us like to be rusty in these matters, and people in the country have to get by reading what can be had in the city by ordinary social intercourse. If we would remove the prejudice against farm-life, it must be by making our homes cultivated and refined with books, pictures, and those tasteful accessories which give such a charm to the simplest house. If our closed "best parlors" were libraries in daily use, we should not find that the young people thought that farms were only good places to go from and to visit once or twice a year.

There has been no notice given that the subscription price of these periodicals has been increased. The Quarterlies and Blackwood are \$10.00, and \$3.00 per year for any one of them.

BLACKWOOD'S MAGAZINE (Reprint.) LEONARD SCOTT & Co.: New York.

This monthly is unequalled as a literary periodical. Many have objected to taking it on account of its high Tory politics and its one-sided view of the American war; but aside from these political articles, which are now very infrequent, there is so much that is delightful in each number that we can only regret that so much talent should be wasted—worse than foolishly in upholding a bad cause. Still "Cæcum a sou'gont." If the Tories prefer the Southerners to us, we can live very comfortably and pleasantly without their love, and not deem it necessary to deprive ourselves of reading well-written essays and fascinating novels on that account. Every one can learn more from their enemies than from their friends about themselves.

A series of papers—"Cornelius O'Dowd upon Men, Manners and Things,"—have become a very attractive feature in each number. They embrace a great variety of subjects, and are well written.

HARPER'S WEEKLY. New York: HARPER & Bros.

This pictorial has become an established institution. The engravings are very fine and very numerous—some of the comicities quite good. The politics is strongly Republican, and many of the editorials are well written. Willis Gaylord Clarke is publishing in its columns a series of familiar talks entitled "Succotash;" and there is always two or three chapters of a novel in each number by Reade or Wilkie Collins, or Dickens, or some author of equal celebrity. \$4.00 per year.

MERRY'S MUSEUM AND WOODWORTH'S CABINET. New York: J. N. STEARNS.

This little periodical for children is all that could be desired. The stories, the histories, the puzzles, and the various curious things which it contains, are a never-ceasing source of amusement to the little folks, and how could it be otherwise when "Uncle Merry" and "Aunt Sue" are seated on the editorial throne? What better Christmas present could be given to any boy or girl than to subscribe in their names for Merry's Museum? It is only \$1.50 a year. This will be a present ever fresh, the pleasure being renewed each month.

◆◆◆◆◆

Sale of Valuable Shorthorns.

THE well-known herds of Shorthorns belonging to the late Colonel Rotch, of Otsego county, and of T. L. Harison, of Morley, St. Lawrence county, N. Y., will be sold at Albany November 16th. See advertisement in another column. It is rarely that such an opportunity occurs for obtaining such choice animals.

Let us Hear the Result.

If any of our readers have made any experiments during the past season, or at any time, let us hear the result—favorable or unfavorable.

Let us hear in regard to any new implements or machinery you have used.

We should be glad of suggestions as to the management of horses, watering, cleaning, feeding, etc. Also in regard to the management of cows, sheep, pigs, poultry, etc.

Let us hear from you in regard to plowing, harrowing, rolling, planting, cultivating, hoeing, etc.

We should also like to know the best method of building stone fences, and also the most economical way of building a straight fence from the old rails in a crooked or worn fence.

We want to know about planting and cultivating fruit trees; grafting and renovating old orchards; the cultivation of raspberries and strawberries, best varieties, etc.

We also wish to hear from the ladies. They used to favor us with many pleasant articles, hints, suggestions, receipts, etc. Latterly they have neglected us somewhat. Let us hear from them again. This department of the *Farmer* might be made very interesting and useful.

There are many other subjects on which we should like to hear from our readers.

—In this connection we must apologize for not publishing many of the articles written for the *Farmer*. We have still on hand hundreds of communications, written by practical farmers, gardeners, etc., which it was impossible for us to publish at the time they were received, and which are now rather out of date. The fact that an article is not published, is no evidence that it is destitute of merit, and no sensible man will be offended. We fully appreciate the kindness of those who write for the *Farmer*, and hope they will continue to do so. We read all that is sent, and though we may not be able to publish the whole, the ideas are not lost. Let us hear from all who have anything to communicate.

We are so desirous of hearing from our readers that we will say nothing as to how they shall write. Our business man, however, asks us to request that our friends would write anything intended for the editors, on a separate sheet of paper. This would certainly be a convenience, but we know better than he does, that it is not always easy to do so. Let us hear from you in any way that suits you.

We would call particular attention to the announcement of Mr. Rufus W. Leavitt, of New York, in the advertising columns of the *Farmer*. Mr. L. has been appointed sole agent in the United States of Mr. Lawes' artificial manures. We need hardly say that these manures are composed on strictly scientific principles, and are the result of many years' investigations. They are unquestionably the best manures of this class in the world, and we are exceedingly glad that they are at length offered to the farmers of the United States. Mr. Leavitt has now on hand manures for wheat and grass which may be sown this fall.

List of Nurserymen, &c.

In the list of nurserymen, published in the September number of the *Genesee Farmer*, there were some errors and omissions. We make the following corrections:

J. U. Morrison, Seedsman, of Montgomery, N. Y., should be J. M. Morrison.
Cline & Ten Brook, Paris, Ill., should be Ten Brook & Caldwell.

M. A. Walmoley, Bristol, Pa., should be M. A. Walmley.
Harris & Hlacker, Cheltenham, Pa., should be Haines & Hlacker.
Isaac H. Gould, Middlebury, N. Y., should be Wyoming, N. Y.

The following are the omissions which have been pointed out to us:

CONNECTICUT.—F. Trowbridge, New Haven and Milford.

F. Sundberg, Florist, New Haven.

H. L. Dudley, New Haven.

E. A. Whiting & Son, Hartford.

Alfred Whiting, Hartford.

C. P. Augur, Whitneyville.

MASSACHUSETTS.—Eliphalet Stone, Dedham.

S. M. Cutler, Holliston.

DELAWARE.—Edward Tatnall, sr., Wawaset Nurseries, Wilmington.

Edward Tatnall, jr., Brandywine Nurseries, Wilmington.

MISSOURI.—N. J. Colman & Co., St. Louis.

J. M. Jordan, St. Louis.

Henry Michael, St. Louis.

Bayless Brothers, Crandonet.

J. J. Kelly, Webster.

Charles Connor, Webster.

E. E. Mason, Webster.

T. C. Mallinckrodt, St. Charles.

George Hlusmann, Herman.

NEW YORK.—E. F. Richardson, Thompson, L. I.

CANADA WEST.—I. A. Simmes, Seedsman, Toronto.

In the *Rural Annual and Horticultural Directory for 1865* a revised list will be published. We should esteem it a favor if the nurserymen and seedsmen would aid us to prepare a full and correct list.

ADVERTISEMENTS.

A FEW short advertisements of interest to farmers—and only such—will be inserted in the *GENESÉE FARMER* at twenty-five cents a line, or \$2.50 per square, or \$25 per column, each insertion, payable in advance.

THE GENESÉE FARMER:

A MONTHLY JOURNAL OF AGRICULTURE AND HORTICULTURE.

Published at Rochester, N. Y., by

JOSEPH HARRIS.

Terms—INVARIABLY IN ADVANCE—One Dollar a year.

2 MADE FROM 20 CENTS!—Call and examine. 2 or ten samples sent free by mail for 20 cents. Retail for \$2 by R. L. WOLCOTT, 170 Chatham Square, N. Y. my'64-1y

STRAWBERRY AND LAWTON BLACKBERRY PLANTS—For sale on two years credit without interest by EDMUND MORRIS, Burlington, N. J., October, 1864. nov24*

CRANBERRY PLANTS—Of the Bell, Cherry and Bugle varieties. Send for Circular giving mode of culture, price, &c. Also, manufacturer of **Grafting Wax and Tree Varnish** for cuts and bruises on trees. A sure protection from Weather, and will heal sound wood. The Wax is also valuable for sealing Fruit Bottles. For sale by oct6t F. TROWBRIDGE, Milford, Conn.

THE CELEBRATED CRAIG MICROSCOPE.—Combining Instruction with Amusement is mailed, prepaid, for \$2.50; or with 6 beautiful Mounted Objects for \$3.25; with 24 Objects, \$5.50, by HENRY CRAIG, 150 Centre street, New York. Also, he will mail, prepaid, the Novelty Magnifying Glass, for examining Living Insects, Seeds, Flowers, &c., for \$1.50; or with 12 beautiful Mounted Objects for \$3. je'64*

THE BOWEN MICROSCOPE! MAGNIFYING 500 TIMES—MAILED EVERYWHERE FOR 50 CENTS. THREE FOR \$1. Address oct3t* F. H. BOWEN, Box 220, Boston, Mass.

J. B. LAWES' ARTIFICIAL MANURES.

FACTORIES, } LONDON OFFICE,
 DRIFTFORD AND BARKING CREEKS, } { No. 1 ADELAIDE PLACE,
 ENGLAND. } LONDON BRIDGE, E. C.

THE undersigned, having been appointed Sole Agent in the United States for the sale of the celebrated and well-tested (through all Europe and the East Indies) Artificial Manures, manufactured by J. B. LAWES, Esq., of Rothamsted, St. Albans, Eng., whose works are the LARGEST and OLDEST of the kind in the world, now takes much pleasure in informing the Public that he is prepared to introduce them in this country in all their different branches, viz., for the production of

WHEAT, CORN, GRASS, and VEGETABLES of all kinds.

Farmers and Agriculturists from all parts of the country will be supplied on the most liberal terms, and all orders and inquiries promptly attended to.

RUFUS W. LEAVITT, Agent,
 115 WALL STREET, NEW YORK.

Agricultural Books.

THE undersigned, who have been engaged in the Publishing and Bookselling Trade for over fifty years, recently made large additions to their premises and added to their business an

AGRICULTURAL DEPARTMENT,

take this opportunity of stating that they propose to keep on their shelves the

MOST COMPLETE ASSORTMENT

of works on this and kindred subjects. Their stock is always open to an examination, and it will give them pleasure at all times to furnish any information in their power.

A PRICED CATALOGUE will shortly be issued with many of the books at reduced rates, and sent FREE to anyone applying for it.

WILLIAM WOOD & COMPANY,
 Publishers and Booksellers,
 61 Walker St., New York.

AUCTION SALE OF

VALUABLE SHORTHORNS.

THE Herds of the late Colonel FRANCIS M. ROTEN, of The Grove, (Morris, Otsego county, N. Y.) and of THOMAS L. HARRISON, of Morley Farm, (Morley, St. Lawrence county, N. Y.) will be sold conjointly at PUBLIC AUCTION, without any reserve, at the barns at Mount Hope, (the use of which has been most kindly granted for the purpose by E. P. PRESTON, Esq.,) at Albany, N. Y., on

Wednesday, Nov. 16, 1864, at 2 o'clock P. M.

precisely. These herds are of such excellent reputation that the undersigned confidently bespeaks the attention of American and Canadian Breeders.

Catalogues are now ready, and may be had on application to T. L. HARRISON, to SAMUEL THORNE, Thorndale (Washington Hollow, N. Y.), or to the Auctioneer.

It JOHN R. PAGE, Sennett, Cayuga county, N. Y.

LUMBER AND LOG BOOK.

SCRIBNER'S READY RECKONER for measuring all kinds of Saw Logs, Boards, Planks, Cubical contents of square and round wood, &c., comprised in a number of tables, to which are added tables by the month, board or rent by the week or day, &c., &c. Scarcely is it possible to add to the recommendations of the above book, more than to give its title page, as every one engaged in buying and selling, measuring or inspecting lumber, will at once appreciate the work. This is the most complete and reliable book ever published on this subject. Over three hundred thousand copies have been sold, and the demand is constant and increasing.

Farmers, lumber merchants, and business men, will find it very useful. Price, 20 cents, post-paid. Peddlers and dealers can make money selling this book.

Published and for sale, wholesale and retail, by
 GEO. W. FISHER, Rochester, N. Y.

Monroe Nursery, Monroe Mich.

10,000 PEACH TREES

Of the leading varieties. Also, a general assortment of FRUIT & ORNAMENTAL TREES.

Grape Vines,

Such as Delaware, Concord, &c.—very fine.

STRAWBERRIES.

Russell's Prolific, Triumph de Gand, Wilson's Albany, &c. Correspondence solicited. Catalogues on application with Stamp. I. E. ILGENFRTZ & CO.

GREEN'S PATENT ROOFING—Consists of a stout Canvas, impregnated with a Water-Proof and Fire-Proof Compound, covered on both sides with a stout fabric made water proof by a solution of INDIA RUBBER, and hardened by a coating of PATENT METALLIC PAINT.

It is both WATER-PROOF and FIRE-PROOF. It rolls up and unrolls like a piece of thin oil-cloth. It makes the best and most durable READY ROOFING ever introduced.

It is designed for Dwelling-houses, Barns, Sheds, Steamboats and Railway-cars.

It can be laid down by any sensible workman. It is CHEAPER than any known Roofing of equal durability. HENRY SMITH, 129 Pearl st., New York.

WINE PLANTS

FOR MAKING THE

TURKISH RHUBARB WINE.

HAVING grown this plant extensively, and having direct business communications with importers, I am prepared to furnish the roots in such quantities as may suit purchasers. Also, the WINE.

Agents wanted. Address. H. B. BAILEY, Andover, Ct.

LATEST IMPROVED

Hay, Straw and Fodder Cutter.

Is far superior to any in use.

PREMIUM FARM GRIST MILL.

Simple, cheap and durable. Is adapted for Horse Power.

Send for Descriptive Circulars, and address WM. L. BOYER & BRO., Philadelphia, Pa.

THE BEST AND CHEAPEST FARMING

LANDS IN THE WHOLE WEST, ARE THOSE OF NORTHERN MISSOURI.

REBELS are moving away, and are selling for whatever they can get. An extensive immigration from the Northern States and from Europe already begun, will soon occupy that part of the State and develop its immense natural wealth. Free and full information given on application to ELI TRAYER, 1 Park Place, New York.

\$200,000 APPLE STOCKS.—No. 1, \$5 per 1000.—No. 2, \$2 per 1000.

Apple Root Grafts, \$50 per 10,000.
 300,000 White or Hedge Willow, \$2 per 1000.
 Linneus Rhubarb (Wine Plant) \$5 per 100, \$40 per 1000.
 Quince Stocks, Currants, Gooseberries, Grapes, &c., at lowest rates.

Delaware, Concord, and other cuttings. Asparagus Roots, &c., &c. E. Y. TEAS, Richmond, Ind.

FARMERS, ATTENTION!

DO NOT purchase a Mower or Reaper for the season of 1865 until you see "THE IMPROVED CAYUGA CHIEF MOWER AND REAPER," and "Improved Cayuga Chief Junior Mower," as manufactured only by

BARBER, SHIELDON & CO., Auburn, N. Y. Circulars, with full description, &c., furnished on application, or forwarded by mail.

\$100 PER MONTH—AGENTS WANTED By the AUBURN PUBLISHING CO.

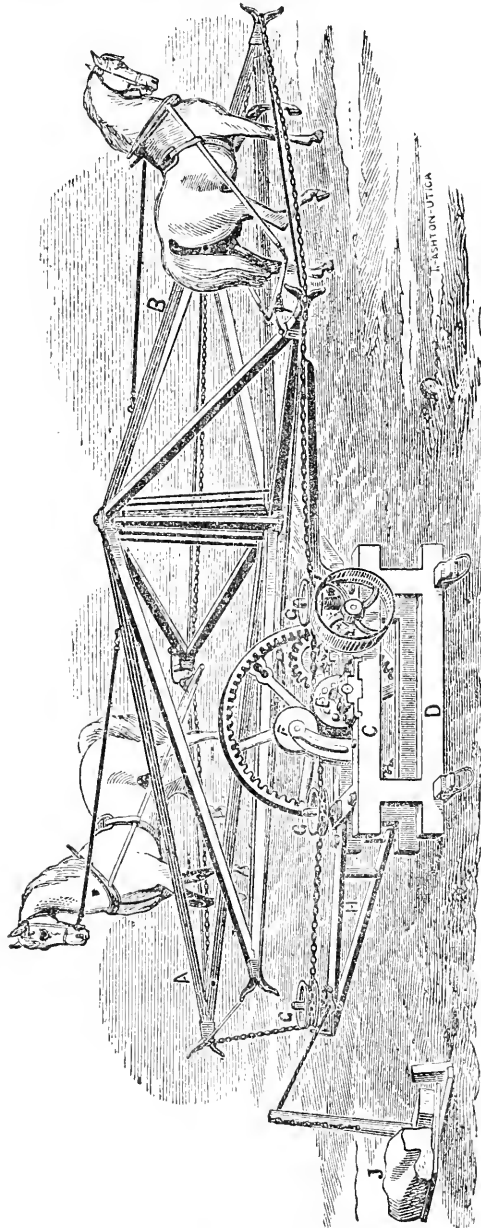
in every township to sell their valuable books for the people—including the latest History of the Rebellion. For full particulars and liberal offers

Address E. G. STORKE, AUBURN, N. Y.

White or Hedge Willow for Sale.

CUTTINGS of this superior live fence plant, of suitable length, at \$1 per 100 or \$5 per 1000. Warranted true SALIX ALBA. D. S. HERRON, Utica, N. Y.

Perry's American Horse Power.—A Great LABOR SAVING MACHINE, AND ONE OF THE MOST VALUABLE INVENTIONS OF THE AGE.—FIRST PREMIIUMS were awarded it by the N. Y. State Agricultural Society at the State Fairs of 1863 and 1864, and by the Michigan State Agricultural Society at the State Fair of 1864.—Manufactured by E. REMINGTON & SONS, Iliou Agricultural Works, Iliou, Herkimer county, N. Y.



WHY THE NEW IS MUCH SUPERIOR TO THE OLD POWERS.

- 1st. It occupies much less room for storage, when not in use.
- 2d. It is less heavy and cumbersome—more portable.
- 3d. Can be snugly packed on a common one-horse wagon—and not a heavy load for one horse to draw.
- 4th. Any part can be readily lifted, and loaded, by two men.
- 5th. Not at all liable, like other Powers, to be racked or injured by moving.

- 6th. Is very quickly and easily set up for work.
- 7th. No Joints loosened by setting up and taking down, no matter how often done.
- 8th. Will cost less for Oil, Lard, or Tallow, to run it.
- 9th. Will cost less for repairs, on account of natural wear; and will last longer.
- 10th. Not nearly so liable to serious breakage from great or sudden strains.
- 11th. Home blacksmithing or carpentry will suffice for almost any carelessness.
- 12th. No danger of long suspensions of work on account of breakdowns.
- 13th. Has no bridge, rod, belt, or any other part of the machine for the horses to step over every turn, like all other field Sweep Powers—a great advantage.
- 14th. Will do double the work of other Sweep Powers with the same team.
- 15th. Will do more work with the same team than any Tread Power, and is much more safe and pleasant for the horses.
- 16th. Is the lowest priced of any Power in the market, capable of doing, either, an equal variety, or an equal amount, of work.

Mr. WM. D. SCHERMERHORN, of Deerfield, Oneida county, N. Y., says:

JANUARY 18th, 1864.

Your Horse Power pleases me much. I can saw, in the same time with it, more wood with one horse than I could with two, using any other Power I have ever owned or tried. With rather a small horse I can saw from twenty to twenty-five cords per day with a drag saw. Expecting much from the Power, yet my expectations were not over half what I have realized, especially when I commenced using a circular saw, and found how fast and how easily I could saw, using only two small horses. I believe this new Power will and ought to come into general use for threshing and other purposes.

Mr. JOHN HOOK, jr., of Bridgewater, Oneida county, writes as follows, under date of August 30th, 1863:

"I have been threshing with the Power I bought of you. It works splendidly. I can thresh and clean 400 bushels of oats per day, with two horses, and do it with ease. Old threshers who have been here to see it work, say that I can do more with two horses than they can with five, on the old Powers."

Some improvements, in the way of a heavier and a hardened chain, and in the mode of running the chain, and some other changes in the Jack, have since been made by the inventor, in order to still further simplify and to render the Power practically perfect.

UNPRECEDENTED WITH A CIRCULAR SAW.

This is to certify that during the middle of one of the warmest, if not the warmest day of last August, with no wind stirring, and in a place peculiarly exposed to the hottest rays of the sun, one horse, with Mr. Perry's Horse Power, sawed for me with a Circular Saw, a full measured Cord of large, very dry, and very hard Maple wood, every stick twice through, in just fourteen minutes, as timed by two watches. C. K. NEGUS, Pastor of the Baptist Church, Newport.

Newport, February 8th, 1864.

A CORD IN EIGHT MINUTES WITH A DRAG SAW.

At a Public Trial in Newport, a cord of hard wood was sawed in eight minutes, and 3 cords and 5/4 feet in thirty-two minutes, with ease, by only one horse, including the time occupied in placing two additional logs on the log-way, and the binding of the same after sawing each block, and all stops, as timed by many watches, and measured by a number of men. A more detailed statement of this extraordinary performance, signed by twenty-three prominent citizens of Newport and vicinity will be furnished to all who desire it.

PRICES.

Increased or decreased cost of material and labor in the future will probably cause a corresponding change in the prices given below. At present the price for

No. 1 is fixed at.....	\$200
No. 2 is fixed at.....	175
Drag Saw Attachment.....	25
Drag Saw (filed).....	10
Log Way.....	20
Circular Saw (24 inch) with Table.....	53
“ “ “ without Table.....	19

Catalogues containing a full description of the machine will be sent to any address on application. Address

E. REMINGTON & SONS,
Iliou, Herkimer co., N. Y.

BULLARD'S IMPROVED



PATENT HAY TEDDER,

Or Machine for Spreading and Turning Hay.

THE subscriber having purchased the exclusive right for manufacturing and selling (for the State of New York)

Bullard's Improved Hay Tedder,

now proposes to furnish the Farmers to the extent of his ability, which must necessarily be limited the coming year, owing to the difficulty of obtaining good and competent mechanics.

Those who desire to avail themselves of one of these great labor-saving machines will please send in their orders early to be recorded in turn. "First come, first served." Address
SILAS C. HERRING, New York.

N. B.—Pamphlets and Circulars will be sent by mail to those who request them.

D. R. BARTON, Rochester, N. Y., Agent. ap'64-ly

True Delaware Grapevines.

FROM THE ORIGINAL VINE.

BEST QUALITY OF PLANTS

AT LOW PRICES.

ALSO, strong vines of Allen's White Hybrid, Adirondac, Anna, Creveling, Concord, Clinton, Cayahoga, Clara, Casady, Diana, Golden Clinton, Hartford Prolific, Iona, Israella, Lydia, Lincoln, Lenoir, Logan, Maxatawny, Ontario, Rebecca, Roger's New Hybrids, Taylor, Tokalon, Union Village, Underhill's Seedling, &c.

Also, Downing's Mulberry, Currants, Raspberries, Strawberries, &c.

Send for Descriptive Price List to
GEO. W. CAMPBELL, Delaware, Ohio.

NEW ILLUSTRATED CATALOGUE.

ROCHESTER CENTRAL NURSERIES.

SEND FOR A CATALOGUE

AND

SPECIAL TERMS OF SALE,

AND

ORDER YOUR TREES DIRECT.

Address C. W. SEELYE,
ap'64 Rochester Central Nurseries, Rochester, N. Y.

AMMONIATED PACIFIC GUANO.

A REAL GUANO, containing from seventy to eighty per cent. of Phosphate of Lime, to which has been added by a chemical process a large percentage of Ammonia, so fixed that it can not evaporate, making it equal, if not superior, to any other fertilizer.

Price, \$80 per net ton. A liberal discount to the trade.

Pamphlets, with copies of analysis by Dr. Jackson, Massachusetts State Assayer, and Dr. Liebig, of Baltimore, and testimonials from Scientific Agriculturists, showing its value, can be obtained from
J. O. BAKER & CO., Selling Agents,
oct64 181 Pearl Street, New York.

GRAPE VINES BY MAIL.—Of by Express, including both old and new varieties. For circular, prices, &c., address
oct64 H. B. LUM, Sandusky, Ohio.

Pure Sheep Wash Tobacco.

I HEREBY certify that I have been familiar with all the processes employed by the South Down Company in the manufacture of their "Sheep Wash Tobacco," and that the article prepared under Mr. Jaques' Patent contains all the useful principles of the Tobacco in a concentrated form.

This Paste, employed as a Sheep Wash, according to the directions furnished by the Company, has the effect of curing Scab and other cutaneous diseases, and destroying all parasitic insects which infect the skin and wool of the Sheep, and thereby improves the health of the animal, as well as the quality of its fleece. Employed in the same way, the solution being made stronger, it will destroy those insects which infest the skins of larger animals, and also those that are injurious to vegetation.

CHARLES T. JACKSON, M. D.,

Assayer to the State of Massachusetts, and Consulting Chemist.

Wool Growers should beware of any preparation that contains "sulphur," as it is sure to destroy the fibre of the wool. One pound of EXTRACT TOBACCO will make twelve gallons Wash, and contains the strength of eight pounds of Tobacco, as prepared by farmers.

Agents wanted in every Wool District.

JAMES F. LEVIN, Agent South Down Co.,
23 Central Wharf, Boston.

AGENTS.—DUDLEY & STAFFORD, 69 Beekman st., New York; R. H. ALLEN & Co., 159 and 191 Water st., New York; E. W. HARRISON & Co., Stonestock's Landing, N. Y.; ELIAS FOOTE, Batavia, N. Y.; WM. STIMPSON, Jr., New Hudson, Allegany county, N. Y.; A. M. WIGTMAN, Bath, N. Y.; STODDARD & BARTON, Troy, N. Y.; NICHOLSON, PAINE & Co., Albion, N. Y.; LANE & PAINE, Rochester, N. Y. oct24

FRUIT AND ORNAMENTAL TREES.

TEN ACRES OF STRAWBERRIES—Of the most desirable kinds—such as French, Russell, Fillmore, Triomphe de Gand, Bartlett, Albany, Austin, Cutter, Downer and Lady Finger.
TEN ACRES OF BLACKBERRIES—Dorchester and New Rochelle.

FIVE ACRES OF RASPBERRIES—Including the PHILADELPHIA, the best and most productive Hardy Raspberry. It has yielded with me over two hundred bushels per acre of large, red, luscious fruit without protection from sun or frost.
Send for Catalogues gratis.

sep8t WILLIAM PARRY, Cinnamonson, N. J.

TO FARMERS!

BRADLEY'S TOBACCO FERTILIZER, AND BRADLEY'S B X L Superphosphate of Lime, are for sale at wholesale and retail by the Manufacturer, WM. L. BRADLEY:

Sales Office 24 Broad street, Boston.

Pamphlets containing testimonials in favor of his Tobacco Fertilizer, Bradley's X L Manual on the Culture and Curing of Tobacco, with Illustrations, can be had by addressing the undersigned. WM. L. BRADLEY, my

sep8t Highest Cash prices paid for Bones.

SHORTHORNS FOR SALE.

THE BULL HOPSPUR 4680 A. H. B. by Duke of Gloster (11382) dam Daphne (imported) by Harold (19299) rich roan, calved May 15, 1860. Also, three YEALING BULLS and five BULL CALVES, mostly by Hopspur, and a few HEIFERS.

Catalogues sent on application.
ap'64 T. L. HARRISON, Morley, St. Lawrence co., N. Y.

FRANCIS BRILL,

Nurseryman & Seed Grower,

NEWARK, N. J.

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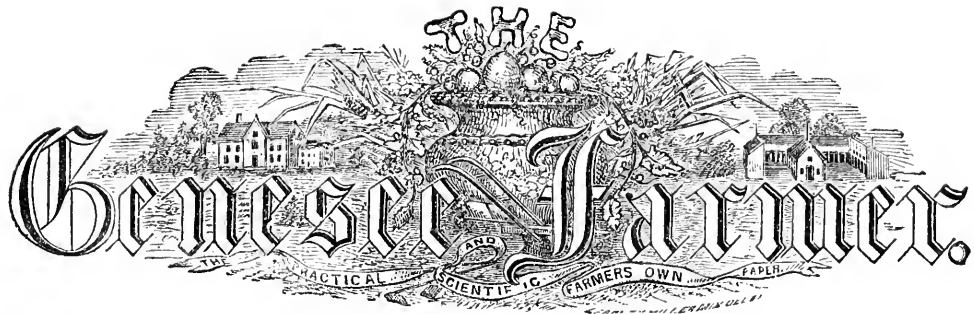
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VOL. XXV. SECOND SERIES.

ROCHESTER, N. Y., DECEMBER, 1864.

No. 12.

WALKS AND TALKS ON THE FARM.—NO. 12.

I WAS talking to a Canadian farmer, last night, who wants to buy a farm somewhere in the States. He thought of going West, but at my suggestion went into the southern counties of this State to look at the farms there. He called on me after he returned. He did not form a very favorable opinion of the farmers in that section. In a ride of eighteen miles, though the weather was very fine, he saw scarcely a man at work in the fields. Occasionally a man was picking apples, or splitting wood in the front yard. As for real, thorough, energetic farming, he saw nothing of it. How the people live, he could not see. They do not half cultivate their land, and seem to have little faith in the profits of farming. They are willing to turn their attention to anything rather than to working their land. If there are a dozen sheep-skins in the neighborhood, half a dozen men would start out to buy them, leaving their farms to take care of themselves.

There is some truth in what he says. I have been in the same neighborhood. Land is cheaper than in any other section of the State. It is an old-settled country, with ready access to markets, land of good quality, and a demand for all that you can raise; and yet he says he was offered farms for \$25 per acre.

To him, of course, this is very cheap. It is only \$10 per acre in Canada money. He thinks land is far cheaper on this side, even if gold was at par, than it is in Canada. I showed him a farm in this neighborhood that was sold last year for \$50 per acre, and he said such a farm, as well situated, in Canada, would sell for \$80 an acre.

If this is so, it follows that at the present time land in Canada is four times as high as with us—for \$20 in Canada money is now equal to \$50 in our money. A Canadian who has a little money to spare could certainly buy a farm here at a very low rate. I do not think farms are any higher now than they were six years ago. A farm that he would have had to pay \$5,000 for before the war, he could now buy for \$2,000! [This was written ten days ago, when

gold was at 250. It is now lower, but the tendency is again upward.]

I am surprised that English and Canadian farmers do not come and settle here more than they do. There never was a better time for them to do so than now. With their money, they can certainly buy a farm for half what they would have had to pay three or four years ago.

Mr. L— was here to-day and advises me to lay down my roses, and then cover the bed with leaves a foot thick and lay some boards on the top, or what would be better still, some branches of evergreens, to keep them from blowing away. This will protect them effectually from the frost, and next summer they will flower to the tips of the shoots. He has had remarkable success with roses, and he adopts this method. Even tender roses can be kept over winter in the open ground by covering them thoroughly with leaves. We all know how completely a thick covering of leaves keeps the frost out of the ground in the woods, and there can be little doubt that they can be used for this purpose with great advantage in the garden.

A good coat of horse manure is the best dressing for strawberries set out last spring. It will protect the plants from the winter and enrich the land at the same time.

Raspberries need nothing more than bending down, and the ends of the sprouts covered with a spadeful of soil. Two men will soon cover a large plat of them. Cut out all the old canes, and then cut the new shoots, leaving only four strong ones in each hill to bear fruit next year. Then let one man bend down two hills together, and let the other man put a spadeful or two of soil on the ends to hold them down. It is very little trouble, and will insure a crop next season. No other protection is needed.

Grapes should be taken down from the trellises, pruned, and covered in the same way. All that is needed is to put soil enough on the canes to hold them down. Straw, grass, and anything that will afford a harbor for mice, should not be used. One

year we had several large Delaware vines injured to a considerable extent by mice that worked among some grass near the trellis, and eat out the buds from the canes.

Owing to the scarcity of fodder and the high price of grain, farmers have been crowding their cattle on the market—too often in a half-fatted condition. The consequence is, that in New York cattle have been in excess of the demand, and prices, especially for inferior animals, declined very materially. The New York papers triumphantly ask: "Where is the evidence of the scarcity of cattle in the country of which we have heard so much?"

Speculators may have represented a greater scarcity of cattle than there is, but that good beef cattle are scarce there can be no doubt. How far high prices will check consumption, and thus restore the deficiency, remains to be seen.

I was talking with an experienced butcher in the city a few days since, and one who has for years traveled all over this section, buying cattle, and he says he has never known cattle so scarce. If I had been buying beef, such a statement might not have been considered very disinterested, but I was talking to him about selling some three year old heifers that are now very fair beef. He strongly advised me to keep them two or three months, and give them a couple of quarts of corn meal per day, with a few turnips, &c. That it would pay, he said, there could be no doubt. He expected to see cattle higher in the spring than ever before.

The rush for cattle to New York has abated somewhat, and prices advanced this week fully one cent per pound.

It seems to be a matter of fact that the higher grain is, the more money there is to be made in fattening cattle and sheep in winter. In these times, however, it is difficult to determine how far we may take experience as our guide—for this reason: One of the advantages of feeding grain to cattle and sheep is the superior quality of the manure obtained. But we have to wait some time before we can get returns from the manure made this winter. If we sell the grain at present war prices, we are sure of the money; but if we feed it to cattle, we may have peace and low prices before we can get any advantage from the manure—and possibly from the cattle themselves.

It is for this reason that artificial manures offer greater advantages than ever before. We get the effect at once, and are thus enabled to get better crops while prices are high. It will scarcely pay to make permanent improvements of any kind, while labor and material of all kinds are so high. We must do all that we can to increase our crops for the

time being, get out of debt, and prepare to make improvements when the reaction shall take place.

If the present fine weather would only last a week or ten days longer, I would keep all my teams plowing. For the destruction of insects late plowing in the fall is better than early plowing. The worms have descended into the ground four or five inches deep. If turned up on a warm, sunny day, they will get warmed into life, and then a frost at night will do the business for the rascals.

How few people pay any attention to the management of their manure. A heap of horse dung is allowed to remain near the stable door, where it fire-fangs; while near the pig pen there is a slush hole in which half the manure runs away and is lost. Now would it not pay to throw the horse manure into the pig pen? It would absorb all the liquid, giving the pigs a good, dry place, and making a fine lot of excellent manure.

One of the oldest farmers in town told me to-day that he had never known so wet and disagreeable a fall. It has been almost impossible to get along with the work. Many farmers have not yet dug their potatoes, and the late severe frost must have injured them seriously. I have dug all mine, except about an acre of Californians that I raised for the pigs. When steamed and fed out at once, the frost will not injure them. In fact, if there is any truth in the idea that sugar is more fattening than starch, a little freezing would be an improvement. I do not think I shall freeze them purposely, but as they are frozen we may as well put the best face on the matter, and conclude that the potatoes are all the better for it.

Cornstalks are also seriously injured by the weather. Last year I did not draw mine in till the middle of December. They were then as bright and nice almost as when cut. But this year they look as weather-beaten as though they had been out all winter. We must make the best of them, however. Fodder is very scarce. Hay has already sold as high as \$26 per ton in Rochester, and straw is in demand for paper. There can be little doubt that stock of all kinds will be very high in the spring, and it is worth making a great effort to keep over as much as possible.

When I was a boy there was nothing I enjoyed more than to cut little drains to carry off the water from the land. I used to like to see it run. I have been at the same kind of work to-day, and enjoyed it just as much—barring the reflection that if the land was underdrained, as it should be, there would be no surface water to let off. Even a little surface drainage of this kind is better than nothing, and I

was surprised how soon I could let off all the water that had accumulated in the dead furrows on different parts of the wheat. It is just a pleasant pastime for a farmer and his son to take a spade and a hoe and let off the water. The boy at all events will enjoy it.

Farmers do not talk enough to their sons about farming operations. They do not realize how interested their sons would soon become, if talked to and consulted about plans for future improvements. Give them reasons for doing things so and so, with reminiscencies from past experience, and they will recollect them and profit by them when you are no more. I can recollect many things my father told me when a mere boy, and which are of use to me in my farming operations to this day.

The more I see of the agriculture of the country, the more I am persuaded that we shall be *compelled* to farm better. It is vain to suppose that we can go on as we have done. There *must* be a change. The first flush of fertility in the soil—the accumulation of leaves and other organic matter—is rapidly becoming exhausted, and we shall be compelled to spend more labor in the preparation of the land for crops, and in furnishing more manure. The last census proves conclusively that the crops of the United States by no means increase as rapidly as the population. Agriculture has not been as profitable as it should be, and we need—and shall have—higher prices, and then farming will take a higher rank than it has hitherto occupied in this country.

Wool is advancing again, somewhat. It is principally in the hands of wool dealers, and they are determined to hold on to it till the manufacturers are willing to pay at least as much as they gave for it. Wool cannot be imported at the present rate of exchange, high duties, &c.; and it seems as though the manufacturers would be compelled to accept the terms of the wool dealers.

Still, there is unquestionably a heavy clip in the country, and at length the high price of cloth is beginning to have its proper effect in checking the demand. The shoddy aristocrats and young men in our cities who have more money than brains—and none too much of the former—may be willing to pay one hundred dollars for an overcoat, but those of us who have to work for a living must patch up our old clothes and get along the best way we can. And it is astonishing how much a man can spend on his dress, and how little he can get along with if he tries. The dry goods men and tailors have found out to their cost that people will not pay such exorbitant prices for their goods. The great body of the people, as soon as they see the necessity of it, are willing to forego for a time all superfluous articles

either of food or clothing. We have on our hands one of the greatest wars in history, and we must devote all our energies to bringing it to an honorable termination. We must cut off all luxuries, as well of home as of foreign manufacture, and raise more necessities.

I have always admired the answers of Benjamin Franklin, when examined before the British Parliament in 1766, relative to the repeal of the Stamp Act. Common people in England are to this day quite as familiar with it as Americans, and I think admire the boldness and adroitness of Franklin's answers even more than his own countrymen.

He was asked :

Q. Do you not think the people of America would submit to pay the stamp duty, if it was moderated ?

A. No, never, unless compelled by force of arms.

Q. What was the temper of America toward Great Britain before the year 1763 ?

A. The best in the world. They submitted willingly to the government of the crown, and paid, in their courts, obedience to the acts of Parliament. Numerous as the people are in the several old provinces, they cost you nothing in forts, citadels, garrisons, or armies, to keep them in subjection. They were governed by this country at the expense only of a little pen, ink and paper ; they were led by a thread. They had not only a respect, but an affection for Great Britain ; for its laws, its customs and manners, and even a fondness for its fashions, that greatly increased the commerce. Natives of Britain were always treated with particular regard ; to be an *Old-England man* was, of itself, a character of some respect, and gave a kind of rank among us.

Q. And what is their temper now ?

A. O, very much altered.

* * * * *

Q. Don't you think cloth from England absolutely necessary to them ?

A. No, by no means absolutely necessary ; with industry and good management, they may very well supply themselves with all they want.

Q. Will it not take a long time to establish that manufacture among them ; and must they not in the meanwhile suffer greatly ?

A. I think not. They have made a surprising progress already. And I am of opinion, that before their old clothes are worn out, they will have new ones of their own making.

Q. Can they possibly find wool enough in North America ?

A. They have taken steps to increase the wool. They entered into general combinations to eat no more lamb ; and very few lambs were killed last year. This course, persisted in, will soon make a prodigious difference in the quantity of wool. And the establishing of great manufactories, like those in

the clothing towns here, is not necessary, as it is where the business is to be carried on for the purposes of trade. The people will all spin, and work for themselves, in their own houses.

Q. Can there be wool and manufacture enough in one or two years?

A. In three years, I think there may.

Q. Does not the severity of the winter, in the northern colonies, occasion the wool to be of bad quality?

A. No; the wool is very fine and good.

Q. In the more southern colonies, as in Virginia, don't you know, that the wool is coarse, and only a kind of hair?

A. I don't know it. I never heard it. Yet I have been sometimes in Virginia. I cannot say I ever took particular notice of the wool there, but I believe it is good, though I cannot speak positively of it; but Virginia and the colonies south of it have less occasion for wool; their winters are short, and not very severe; and they can very well clothe themselves with linen and cotton of their own raising for the rest of the year.

Q. Are not the people in the more northern colonies obliged to fodder their sheep all the winter?

A. In some of the most northern colonies they may be obliged to do it, some part of the winter.

Q. Can anything less than a military force carry the Stamp Act into execution?

A. I do not see how a military force can be applied to that purpose.

Q. Why may it not?

A. Suppose a military force sent into America, they will find nobody in arms; what are they then to do? They cannot force a man to take stamps who chooses to do without them. They will not find a rebellion; they may indeed make one.

Q. If the act is not repealed, what do you think will be the consequences?

A. A total loss of the respect and affection the people of America bear to this country, and of all the commerce that depends on that respect and affection.

Q. How can the commerce be affected?

A. You will find, that if the act is not repealed, they will take a very little of your manufactures in a short time.

Q. Is it in their power to do without them?

A. I think they may very well do without them.

Q. Is it their interest not to take them?

A. The goods they take from Britain are either necessaries, mere conveniences or superfluities. The first, as cloth, &c., with a little industry, they can make at home; the second they can do without, till they are able to provide them among themselves; and the last, which are much the greatest part, they

will strike off immediately. They are mere articles of fashion, purchased and consumed because the fashion in a respected country; but will now be detested and rejected. The people have already struck off, by general agreement, the use of all goods fashionable in mournings, and many thousand pounds' worth are sent back as unsalable.

Q. Supposing the Stamp Act continued and enforced, do you imagine that ill-humor will induce the Americans to give as much for worse manufactures of their own, and use them, preferable to better of ours?

A. Yes, I think so. People will pay as freely to gratify one passion as another, their resentment as their pride.

Q. If the Stamp Act should be repealed, would it induce the assemblies of America to acknowledge the rights of Parliament to tax them, and would they erase their resolutions?

A. No, never.

Q. Are there no means of obliging them to erase those resolutions?

A. None that I know of; they will never do it, unless compelled by force of arms.

Q. Is there a power on earth that can force them to erase them?

A. No power, how great soever, can force men to change their opinions.

Q. What used to be the pride of the Americans?

A. To indulge in the fashions and manufactures of Great Britain.

Q. What is now their pride?

A. To wear their old clothes over again, till they can make new ones.

We can do the same thing again, the moment there is a necessity for it. In the Revolution, as now, speculation, extravagance and corruption were rife, but the great body of the people then as now were patriotic and terribly in earnest. We can wear old clothes, rather than pay such exorbitant prices for new ones.

I wonder if the American dislike to mutton had not its origin in "the general combinations to eat no more lamb"! Mutton is now decidedly the cheapest food we have. Good, fair sheep sell for \$5 a head; and the pelts are worth \$1.50 to \$3 each. So that the carcass costs very little. And yet few people will eat mutton. They will pay 25 cents a pound for pork rather than eat mutton at 4 or 5 cents a pound.

It is cruel to starve animals, or to deny them protection against the fierce blasts of our northern winters. It is, too, unprofitable, for warmth, up to a certain degree, is equivalent to food, and cattle starved in winter will not recover from it till the best part of the summer is past.

HOW TO CARRY STOCK THROUGH THE WINTER.

This is a subject of great importance to American farmers the present year. The great drouth of last summer greatly reduced the amount of hay and the straw of all spring crops. Corn is not a full average crop, and the stalks will fall even still more below the average. There was a large breadth of land sown to buckwheat, and though the yield per acre will not be large, the crop will do something towards helping out our short rations for cattle and sheep.

The same state of things exists in England. The past season was one of severe and protracted drouth. The turnip crop—which is the main reliance for winter feed—is, in many counties, almost a total failure, and all forage crops are greatly below an average. In view of this state of facts, the London *Agricultural Gazette* of September 17 asks: "How are our cattle to be kept the next seven months?" In reply it publishes several communications from farmers in different parts of England, a few extracts from which will be read with much interest, as the subject is one of great importance to every farmer at the present time:

"When I left Somersetshire a month ago (August) a green blade of grass was hardly to be seen, and the turnip crop had almost everywhere failed.

"All persons who have any practical knowledge of breeding and feeding stock must be aware of the great loss attending their being so stinted of food as to become reduced in condition; and how difficult it is to recover their lost condition.

"This is one of the points to which I consider it desirable to direct attention, and to enforce the necessity of preventing it at almost any cost. I would beg to suggest as one of the most obvious measures the cutting up all the straw that can be spared, and using it for fodder in conjunction with meal of any sort, or of cake, according to the respective prices of each.

"The foregoing has reference to sheep as well as to cattle. In the case of the former, not only will the produce of wool be much lessened by hard keep, but its quality for combing purposes will be materially depreciated."

Mr. Burniston, of Henley, thus relates his experience in the use of linseed oil as an addition to straw chaff as provender for stock in store condition. He says:

"About fifteen years ago, when under a very clever and practical farmer in Dorsetshire, I remember we fed thirty-two working oxen and other young stock very advantageously on chopped straw, a small proportion of hay chaff, and a sprinkling of linseed oil, and the animals thrived very well on the compound.

"Hay is dear and the turnips are a failure this season, and I would suggest the following mixture to those who are short of feeding materials for their store cattle and sheep:

<i>Lbs.</i>	<i>s. d.</i>
77 chopped oat straw.....	nil.
23 pollard (shorts).....	1 6
7 pure linseed oil.....	2 3
112	3 9

"The above would cost 3*l.* 15*s.* per tun, containing

about 10 per cent. of oil. The best linseed cake contains about 12 per cent. of oil, and is now selling freely at 12*l.* 5*s.* per tun.

"The linseed oil should be sprinkled over layers of chaff by a can and rose, and afterwards subjected to pressure to make the oil blend with the chaff and pollard. Animals are particularly fond of the linseed oil, and if it proves too laxative a greater proportion of straw chaff would correct its influence."

Linseed oil is too high in this country to be used for food; but instead of sending our linseed cake to England, we may feed it out at home with great benefit to cattle and sheep and to the manure heap.

The editor of the *Agricultural Gazette* gives his experience in feeding a small quantity of oilcake meal. He says:

"A lot of two-year old steers and heifers were kept all winter on a very few turnips indeed, with straw chaff on which not more than a pound of linseed apiece, boiled into a thin and hot and saltish soup, had been poured. There is not only thus the direct addition of food, but this manner of applying it adds to the savouriness of the mess, and brings out the aroma of the provender, making it smell almost as sweet as hay. There can not be a doubt that our live stock during the coming winter, in the districts which have been so much injured by the drouth, must do without litter. Sand and burnt clay, fern and other leaf, expedients of that and other kinds, must suffice to provide them with bedding—the straw will have all to be turned to account as food."

A correspondent of the London *Times*, H. J. Turner, of Richmond, Yorkshire, says:

"Owing to the total want of after-grass and of grass in our pastures, our present means of making fat are much curtailed, and when the great failure of the turnip crop is taken into consideration, it seems clear that our ordinary mode of fattening stock during next winter will have to be considerably modified. A liberal supply of cake, or bruised barley, or oats, or inferior wheat, must be given to stock, along with a very limited quantity of roots. The rough barley will come in well for this purpose, and reduce the outlay for cake; and, with beef and mutton at the high prices they are sure to bring, barley used in this manner will probably make as much money as that sent to the maltster."

In the *Agricultural Gazette* for September 24 there are no less than thirteen communications on this subject from different districts in Great Britain. Mr. R. Stratton, of Stapleton, near Bristol, writes:

"You ask how stock is to be carried through the coming winter? I confess I have no great fears on this head, as, although hay is less than half the usual quantity, and is already high in price, yet, in a season like this, straw of every kind is excellent, and I have proved that with four pounds daily of bruised oats, beans or peas, store cattle do well. The difficulty will be with cows in milk and making-meat; here the lack of turnips and hay will be felt, and the flockmasters of Wiltshire will be sadly puzzled to carry on during the spring months. We always kept the ewes until lambing on pea straw and a little corn. This year they must have a double portion of the latter in place of Swedes. This season proves how much better I should have fared with a greater proportion of arable land."

Mr. Francis Burnett, of Kingscote, Gloucestershire, says:

"Cattle must be kept on straw cut into chaff with ground corn or cake, mixed up in a heap, and a few bucketsful of water thrown over it."

Mr. Charles Lawrence, of Cirencester, whose name will be familiar to many of our readers, writes:

"For the economic feeding of stock during the coming winter, the first consideration would be shelter from wet and cold. Secondly, attention, in the preparation of food, to certain relative proportions of the nutritive and respiratory elements of food is material. It has, I believe, been found in practice, that food which contains one part of nutritive elements containing nitrogen, to from four to five of fattening, or carbonaceous elements, is in economical proportion. It must be borne in mind, it is the quantity of food which an animal can assimilate by thorough digestion, and not the quantity which an animal will eat, that is the economic consideration; for all the rest is waste, excepting as manure. Linseed cake of prime quality at the present price, about 12 $\frac{1}{2}$ per tun, is an extravagant food. Bran, at 5 guineas a tun, is far more economical. Lentils and Indian corn, both at present to be bought at from 32s. to 34s. per quarter (eight bushels,) are cheap foods. Wheat again is a cheap article to mix with Indian corn. The former contains, in 100 parts, 20.82 of nutritive, and 60.38 of fattening matter; the latter 10.70 of the former, and 72.08 of the latter."

Mr. W. Simmons, of Wanborough, Surry, says:

"I am thinking at present of collecting the scattered Swedes and turnips for yard feeding, and all that I possibly can in the shape of chaff, sweet straw, &c., to form a basis for a feeding material of a more expensive kind, and fully expect to pay dearly for fattening this winter. The usual winter stock of sheep I keep, with the same feeding, would eat everything clean up by the end of November—such is the extent of the failure. Let us hope that a mild winter may mitigate the apparent scarcity of food for live stock; and, whatever it may cost to fatten, the flockmasters may not suffer in their breeding flocks. They will not require telling the condition must be kept up at any cost, for poverty is the first step towards disease."

Mr. James Eames, of Lynch, says:

"The only really cheap thing the farmer has is wheat, and that under 9 $\frac{1}{2}$ per tun must be used for cattle and sheep feed; and it is quite as safe as any other corn properly used. I have used a considerable quantity these last three years, mixed with peas and beans or either, and barley or oats, all ground together with a very little linseed cake; the thing is not to give too much of one thing."

TO CURE SHEEP FROM JUMPING.—A correspondent of the *Ohio Farmer* gives the following curious account of the method adopted by him to prevent his sheep from jumping the fences of his pasture: "I want to tell you about my jumping sheep and how I broke them. I got them in a pen built sufficiently large to hold them. I then caught the ring-leaders, one at a time, and made a small hole in each ear. I then took a cord or string and run through the holes in the ears together close enough to keep them from working their ears; I then let them out and they are as quiet as any sheep."

THE EFFECT OF THE WAR ON AGRICULTURE.

THE WAR is destined to make great changes in the social condition of American farmers. Hitherto they have not occupied that position which is accorded to agriculturists in older countries. With cheap land, dear labor and low prices, farming has not been as remunerative as many other avocations. Wealth has accumulated in cities and villages rather than in the country, and farmers themselves have not been indisposed to their sons engaging in trade rather than in agriculture. The war will change all this. Trade adds little or nothing to our national wealth. It is true that we must have "middle men"—men who make a living by buying from those who wish to sell, and selling to those who wish to buy—but it is not desirable that so much of the labor of the country should be occupied in this way.

Since the war commenced large fortunes have been made in trade, and this has caused an influx of young men to the cities. The tide, however, is now turning. The war—the most gigantic and expensive of modern times—has absorbed so much of the labor of the country, that the non-producing classes are relatively vastly more numerous than ever before. We produce less and consume more than during a period of peace. Prices are regulated by supply and demand. With the tens and hundreds of thousands that have left the farm for the army, the supply must be less and the demand greater. Prices, therefore, must advance. Trade can not be as profitable, as a whole, as it has hitherto been. The intelligence of the country must be turned to agriculture. It supports all other interests. This has always been the case, but we have, during a long peace, increased so vastly in material prosperity, that those who could supply us with luxuries have obtained a more liberal compensation than those who furnished the mere necessities of life. The war will, in the end, make us poorer. We shall not be able to waste so much labor. The cities will feel their dependence on the country. The importance of agriculture will be felt and acknowledged by all, and if farmers are true to themselves, they will exert a far greater influence than ever before in this country.

Farmers must take a greater pride in their business. They should understand their responsibility and strive to meet it. They must farm more intelligently, keep better stock, raise larger crops, make greater improvements and systematize their labor. This *will* be done. If farmers themselves, or their sons, do not do it—if they do not bring more energy and intelligence to the cultivation of the soil—others will do so. Agriculture will be more profitable than it has hitherto been, and will draw to it the

capital and intelligence of the country. Let farmers, and especially farmers sons, ponder this matter.

Let them feel assured that *good* farming will be profitable. Let them have faith in the soil, and in thorough cultivation. Let them not fear to spend money in judicious improvements—in underdraining, in manures, in good implements, in better stock and higher feeding. The soil will prove grateful, and you will certainly get back with interest all that you put into it

IRISH EMIGRATION TO AMERICA.

AT the late meeting of the Tipperary Union Farming Society, the Chairman, Lord Stanley, who owns an extensive estate in the district, alluded to some topics which are not without interest on this side of the Atlantic. We make a few extracts from his speech, as reported in the *Irish Farmers' Gazette*:

"Now, you may think me sanguine, and perhaps I am sanguine, but I can not bring myself to take a desponding view of the future of the landed interest in this part of Ireland. I know that of late we have suffered from a succession of bad seasons, telling heavily against the poorer farmers, and, indeed, against the farmers generally as a class, and aggravating painfully that poverty and that distress of which we have had too much already among us. I know also, and that is a matter to which no public man can look without the deepest interest, that there has been over many parts of Ireland, and more especially through the south and west of Ireland, a continuous outflow of population. Now, as to the first of these topics—as to the temporary distress from bad harvests—of course we can not have any security against its recurrence. All we can do is to secure ourselves against utter ruin by, in the popular phrase, 'Not putting all our eggs into one basket'—by, in fact, not falling into the error of relying too much upon one article of produce. However, I believe I may congratulate you on the fact that the present year has been more prosperous than any since 1860—more prosperous, more favorable, as a whole, for Ireland than for England, and I may congratulate you now upon the proportionate diminution of the sufferings of the poorer classes.

"The other topic to which I allude is far more serious. Now, if I thought, as some people do, that that drain was to continue for an indefinite time, and at an accelerating speed—if I thought that this rich and fertile country was to become a mere grazing farm, and that cattle were to feed where villages used to exist—that men were to disappear, and beasts to take their place—if I thought that was the state of things we were coming to, I should look upon it with the deepest apprehension and regret. I should lament, as an Englishman, over the loss to

our common country of so many stout hearts and strong hands—of so much labor which our fields might usefully absorb—of so much courage which had often been tested before, and may be tested again in the national defense. But, gentlemen, again you will think me sanguine. Having inquired, and read, and done what I could to enable me to form an impartial opinion upon this matter, I confess I can see no reason to suppose that the present loss of population will continue, at least at its present rate. Now, do not mistake me upon that point. I don't doubt that emigration from this country will go on, and that it will go on to a very considerable extent. There are always great attractions to the laboring man in a new country, where the amount of unoccupied land is practically boundless, and only wants hands to till it. The existence of this attraction we can not prevent, even if we wished it. That is a state of things which legislation did not make, and which legislation could not unmake. Parliament can do a great deal, and, indeed, it used to be said that Parliament could do anything, except turn a man into a woman, and *vice versa*. Parliament can not give to England and Ireland the vast population and boundless prairies that exist beyond the Atlantic. Well I know, also, that in the case of America the attraction to that country is increased by the hundreds of thousands who have gone before—by the money they have sent home, which I have heard estimated at ten millions sterling—by the messages of invitation that have come from thence, and by the fact, that even when they go there they are surrounded by their friends or their families who have gone before, and are, therefore, able to emigrate without breaking through all social and domestic ties. No doubt, all these are permanent attractions, and will continue to attract and influence many after we are all in our graves.

"Notwithstanding, I think that the amount of emigration which is going on at the present time at such a rate is due to peculiar circumstances. You all know the state of things which exists now in the United States of America. You all know that there is there going on an expenditure moderately estimated at the rate of half a million a day, the like of which the world has never seen before. What the effect of that outlay may be it is difficult to say, but I fear it will have a serious, if not disastrous, effect on the future of that magnificent country (hear, hear). But, of course, the effect of that outlay is to produce a demand for labor at consequently a higher rate of payment than has ever existed before, whether in the old or new world. When one hears of able-bodied but unskilled men getting 25s. a week (\$6.25), and that, too, often allowing for the depreciation in their paper currency, one can not wonder that such prospects as these should be ac-

cepted by men who twenty years ago would have been satisfied with one-fourth the amount.

"But I don't think we can reckon on the permanence of that outlay upon the part of the United States. There are signs already that the war is drawing to a close, and when it ceases, and when more than the million of men now in arms have returned to their ordinary occupations, and when the taxes are being collected in to meet the interest on that enormous debt, then, I think, you will see, not indeed a cessation, but a considerable relaxation in the demand for European labor. But that is not all. There is always a disparity, there will be always a disparity between the wages of the old and of the new world; but that is a disparity which, from the nature of the case, tends not to increase, but to diminish. As men here become scarce in proportion to the demand, wages will rise. As laborers there become more abundant, wages will reduce, and every man who goes out from an over-stocked to an under-stocked market helps to bring about that result and readjust the balance. I think there are some signs of that already; for you may all recollect the wages we used to give in this part of the country. It was stated, on the authority of a government commission, that in 1856 the average rate of wages was $8\frac{1}{2}d.$ a day (17 cents); and I recollect that $1s.$ a day— $6s.$ a week throughout the year—was considered not only good, but high pay. You know better than I do in that respect there is an improvement. I believe that if you include your harvest time, the rate of wages throughout the year may be taken in these parts as something like $1s. 4d.$ a day. (32 cents, and the men board themselves.) I think, therefore, there has been a rise in the price of labor, and that rise tends to increase. For my own part, I don't regret it. Of course, in the interest of the laborer, I don't regret it, nor do I regret it in the interest of the farmer. There is no truth more striking than this: that low paid labor is not always cheap labor. You can only get out of a man that amount of working power which you can put into him by food. The labor of a man well paid and well fed, will be cheaper than the labor of two or even three men half fed, and not able, or perhaps willing, to do more than half a day's work (hear, hear). Now, what I want to say is, that I think the American demand for emigrants will slacken, and that the rate of Irish wages will rise. There is a third point to be considered. Recollect the natural increase of any population in a healthy condition ought to be in a position to sufficiently balance a very considerable outflow. Now, that is a very delicate subject to touch upon, but I can only say that it seems to me that this is a most prolific country. The old bachelor is rarely seen; the old maid is an unknown being. I have seen many cabins where, God knows, the oc-

cupants have few of the necessaries, and none of the comforts of life, but I have rarely gone into a cabin that I did not see two or three children sprawling on the floor. You would have reason to know that, if you had heard so many complaints of heavy families as I have had within the last few days. What is more, they are not only heavy families; but notwithstanding many privations and occasional suffering, which I would be the last to make light of, I believe they are generally healthy families—I believe they are healthy compared with the children of many persons better fed, better clothed, and better housed; but who live in the close air of crowded towns.

"The estimate is that in a new country, under most favorable circumstances, the population doubles itself in twenty-five years. Even in England, taking the United Kingdom as a whole, the population has doubled itself in the last fifty years. I am not saying that that will prevail, or that our Irish population will considerably increase; but I do say, with some confidence, that I believe the natural increase of the population would, by higher wages and by what higher wages bring, be sufficient, before long, at least to balance the outpouring of population to America and Australia. Now, I may be asked how it comes to pass that while the population of Ireland has fallen of, that of England has not decreased in a corresponding proportion. My answer is, that England is a manufacturing and a commercial country. But if you look to the rural districts alone, you will find that the English and Scotch as well as the Irish populations have decreased. I state that, because I think it is important in many points of view that you should not consider your own position as exceptional. In the districts into which the population of England is divided two-fifths of those which are purely agricultural show a diminution; and so in Scotland in twelve out of thirty counties."

THE OKRA PLANT.—It is really surprising that this plant is not more abundantly found in our markets. It is quite easily cultivated, requiring no more attention than a crop of Indian corn. A few days ago the pods sold in the city markets at sixty-two and a half cents for a quarter of a peck. The pods are most delicious in soups, but many persons—ourselves not among the number—prefer them stewed. They should be plucked when perfectly tender, consequently when only a third or half their natural growth, otherwise they are worthless for the table. In this state, too, they can be strung up with twine, and hung up to dry for winter use, when they are a great delicacy. Abundant seed is produced in the pods allowed to remain upon the stalks. The seed, however, should be occasionally changed, otherwise the stalks will yearly grow shorter.—*Germantown Telegraph.*

POULTRY HINTS FOR DECEMBER.

WRITTEN FOR THE GENESEE FARMER BY C. N. BEMENT.

HAVING completed all arrangements for winter, we now turn our attention to the fattening and preparing poultry for market. The first of November is time to begin to feed some of the earlier broods of turkeys, in order to supply public houses and such families as require turkeys early in the season; but they are, like every immature production, inferior in quality. To eat turkey poults is a wasteful luxury. Those who order them are occasionally deceived by a small hen of the previous year; nor are they worse for it, provided the lady of the house is informed of the circumstance, and so enabled to leave a due interval between the killing and the cooking. When they have arrived at the desired degree of fatness, those which are not wanted for immediate use must have no more food given them than just sufficient to keep them in that state, otherwise the flesh will become red and inflamed, and of course less palatable and wholesome. But after having attained their acme of fattening they will frequently descend again, and that so quickly and without apparent cause as to become quite thin. Cock birds play this game oftener than the hens.

Now, as turkeys are raised, fattened and destined to grace the head of the good man's table on Christmas day, and our Christmas feast would not be complete without the *roast turkey*, their mode of treatment for the *finale* requires some notice. Let us take a young poult of five or six months old; the first part of education is passed through—what remains? First, then, it will require a mixture of vegetables, such as potatoes, carrots, cabbage leaves, turnip tops and the like, boiled down and given with meal of various kinds, the whole well blended with corn, oats, barley, &c. But, secondly, comes the question, how to prepare for the Christmas market? Almost every district of country has a peculiar mode of fattening turkeys, and every where it depends on local resources. In one place it is acorns, beech mast and chestnuts, sometimes boiled and mixed with Indian meal. Others prefer to feed them every morning for a month previous to killing with boiled potatoes mashed and mixed with the meal of buckwheat, barley and Indian corn, according to their cheapness or abundance, made into a paste, of which the turkeys are very fond. Every evening the remains are removed and thrown away; the vessel in which it was kept is cleaned for the next morning, because if the weather is warm the paste is liable to become sour and endanger their health. For eight or ten days previous to slaughtering time, the turkeys are allowed in the evening, before going to roost, a small quantity of barley or Indian meal dough, which, in

the course of that period, will render them exceedingly plump, delicious and fat.

Cobbett says, "as to fattening turkeys, the best way is to never let them get poor;" with which we coincide. Barley or corn meal mixed with skin-milk and given them fresh, will make them fat in a short time. Boiled potatoes mixed with ground oats and corn meal, will furnish a change of sweet food which they relish much and of which they may eat as much as they can. As with others, the food of this bird must be kept clean, and the most scrupulous care taken not to give them on the morrow the remains of the mixture of the preceding day. The best diet, however, is barley and Indian meal mixed with water, given in troughs that have a flat board over them to keep dirt from falling in. A hearted cabbage may now and then be thrown to amuse them. Some use plain oats, but some say barley or Indian meal is preferable, acting more quickly.

"In some forests, where there are immense quantities of mast, turkeys will get perfectly fat upon them; but this, though no doubt profitable to the gude wife, it is by no means pleasant to every palate after the bird has been on the spit. Beech mast however, in small quantities, and as the substratum of fattening, rather improves the flavor than otherwise. Acorns, which they will swallow whole, do not come amiss."

A writer in the *Germantown Telegraph*, who had frequently seen charcoal recommended for fattening animals, but who was skeptical as to its value, satisfied himself with the following experiments:

Four turkeys were confined in a pen, and fed on meal, boiled potatoes and oats. Four of the same brood were also, at the same time, confined in another pen, and fed daily on the same articles, but with the addition of one pint of very finely pulverized charcoal, mixed with the meal and potatoes. They had also a plentiful supply of broken charcoal in their pens. The eight were killed on the same day, and there was a difference of one and a half pounds each in favor of the birds which had been supplied with charcoal, they being much the fattest and the meat greatly superior.

Ducks are fattened, either in confinement, with plenty of food and water, or full as well restricted to a pond, with access to as much food as they will eat. They fatten speedily by mixing their hard meat, as an Englishman would say, with such variety abroad as is natural to them, more particularly if in good condition and there is no check or impediment to thrift from pining, for every mouthful tells and weighs.

When ducks are confined to fatten, as they should be in a dark room, giving them light only while eating, it will be well to give them sand, or brick

pounded fine, and mixed with their food, and occasionally scraps of fresh meat. If their droppings are too loose and watery, mix a little forge water with their food; this will also cure the relax in any other fowls.

When you come to fatten ducks, you must take care that they get no filth whatever. They will eat all sorts of garbage of all kinds, but their flesh is strong and bad in proportion.

In Normandy, France, where great numbers of ducks are reared and fattened, the poulterer prepares a paste with buckwheat flour, made into gobbets, with which they are crammed thrice a day for eight or ten days, when, though not fully fat, they are sufficiently marketable to bring a remunerative price.

In Languedoc, where ducks have been rendered tolerably fat by being at large, they are cooped up in a dark place, when they are taken out morning and evening to be crammed. This is done by a girl who crosses their wings on her knees, opens their bills with her left hand, while with her right hand she stuffs them with boiled maize. Many ducks are suffocated by the operation and killed outright, but their flesh is not the worse for the table, provided that they are immediately bled. It requires two weeks to complete the process which increases the size of their liver enormously and oppresses their breathing in a distressing manner. The sign of their being sufficiently fat is when their tails open like a fan, from the fat pressing on the roots of the feathers.

Lawrence says butcher's offal is excellent for fattening ducks, as it does not give the meat that rank, disagreeable flavor which it always imparts to pork, and acorns, on the contrary, while they are good for fattening, injure the flavor of the flesh, and barley in any form is apt to render their flesh insipid.

Their weight, size and flavor depend much upon the manner in which they have been fattened. The size varies much. There are some which, in the course of eight, nine or ten weeks—reckoning from their hatch—weigh as much as five or six pounds; while others of the same age and species do not come to half this weight. As this bird values its liberty very much, it is no less strange than true that it fattens more easily and rapidly not only in confinement, but even when cooped up—repose and good living operating to hasten even aldermanic obesity.

Cobbett advises feeding them on grass, cabbage and lettuce, and especially buckwheat, cut when ripe and flung down in the haulm. This is said to make fine ducks. It is not essential that ducks should have water to swim in during fattening—in fact, such exercise rather lessens than tends to increase the accumulation of fat.

According to old Garvase Markham, pulse of any kind will fatten ducks in a fortnight. We are not of that opinion; and if he had tried it, he would have found his recipe was not always successful.

Oats and corn are the standard materials for fattening ducks and geese, to which may be added boiled potatoes, Indian meal and ship-stuffs, mixed with water, in a semi-liquid state.

That food on which fowls are fed has a tendency to impart a flavor to their flesh, and even their eggs, is obvious from a fact as related by a friend. He said some onions, partly decayed, were thrown into a yard where he had some fowls confined, of which they ate considerable, being the latter part of winter. A few days after he was much surprised to find his eggs tasted so strongly of onions that they could not be eaten. It is well known that when ducks are fed on fish, their flesh has always a fishy taste.

A friend of the writer, long since deceased, who was curious in these matters, and besides a lover of the good things of this world, used to feed his ducks with the offals of his table, corn and oats, soaked in milk and water, to which he added refuse celery, chopped fine, to give them a flavor, which he assured us rendered their flesh little inferior to the famous canvass-back ducks, which feed on the wild celery on the shoals of the Chesapeake and Potomac.

DRESSING.—We have often noticed the careless and slovenly manner, and little attention paid to the external appearance of poultry offered for sale in our markets; and we have likewise noticed the ready sale and higher price where due regard was paid to have the skin all sound and clean; the breast not mutilated by a long cut, the shrinking skin exposing the drying meat covered with hay seed or chaff, but well covered all over with fat of a rich golden yellow. Much of the poultry exposed for sale has been through the process of scalding to facilitate the picking. This practice should never be resorted to. It turns the rich yellow of the fat into a tallowy hue, and oftentimes starts the skin so that it peels off, unless very carefully handled. No cut should be made in the breast, all the offal should be taken out behind, and the opening should be made as small as possible; the inside should be wiped out with a dry cloth, but no water should be used to cleanse them, with a moist cloth take off the blood that may be found upon the carcass. In picking, great care should be taken not to tear the skin; the wings should not be cut off, but picked to the end; the skin of the neck should be neatly tied over it, if the head is cut off. Most people like to see the heads of fowls left on—it makes a better show.

Much care and attention is required after the poultry is dressed and cool, and if to be transported to

any great distance, it should be carefully packed in boxes, with clean, sweet rye straw. It should be entirely cool when packed.

Poultry thus cared for will always command the very highest market price.

NOTES BY S. W.

HOW TO SAVE MANURE.

I HAVE a drain from my necessary which goes into a hole four feet over at top in the clay outside. When this hole is in part filled from the vault, I conduct the waste water from the house roof during rainy weather into it, and also all the wash from the house, except soap suds, which is thrown directly on the strawberry beds and around grape vines. This liquid manure is always ready for distribution to growing crops and the grass plat in the season, and to the asparagus bed, pie plants, and garden generally, in winter and early spring.

My cow is kept tied in the stable. At this time I give her a bed of fallen leaves twice and three times a day, and clean out the well-mixed manure as often. When leaves are gone, I substitute turner's shavings from hard wood—by no means half as rich in nitrogen, alkalis and the phosphates as leaves, but as good as straw, though not as soon soluble.

POTATOES,

supposed to be a failure during the drouth, have since proved a very large and heavy crop. A Cayuga county farmer, who planted Peach-blows for his own use, now has 100 bushels over, which he offers at 50 cents a bushel. Our farmers say Peach-blows never did half as well before, and all the other sorts are of monstrous size. But farmers prefer keeping them to present sales at five and six shillings a bushel.

BUTTER.

It is an enigma to our domestic economists how butter is kept up at so high a price, when none is shipped East. The supply was never greater, and the demand has sensibly decreased, owing to the greater economy in its use and the inability of the poor any longer to indulge in so expensive a luxury. But the "debasement of the currency" is the patriotic as well as the chronic excuse for all high prices.

HOW TO FATTEN HOGS ON HALF THE USUAL QUANTITY OF CORN.

A reliable gentleman in Waterville, Oneida county, has two spring pigs, farrowed in early May. He fed them nothing during the summer but the sour milk of one cow, the swill of his small family, and the grass and weeds from his garden. On the 1st of September they were long, lank and weasel-shaped. He then bought twelve bushels of old corn, had it finely ground, and fed it to them in hasty pudding, three times a day, all they would eat up clean, and always warm. The sour milk and swill

was the only change of food given them. On the 1st of December they were killed, and weighed, when dressed, 606 lbs. The cost of the corn was \$6, or 50 cents a bushel.

How often do we hear a farmer say, it is more profitable to sell the corn crop to the distillers than to fatten hogs with it. Such men also sell their shoats to the distiller, thus selling off the bone and muscle of the farm, the marrow of the soil, at the very time when the fattening process would give them fat pork and the best of manure; while the hogs they fatten for their own use are fed green soft corn in the most wasteful manner. No wonder it don't pay. I have seen a man—call him not a farmer—throw a bushel of ears of corn into a cold, railed pen, with the mud and excrements to their knees. When asked if it was not wasteful, he replied: "They will root out and eat every kernel." "And the exercise," I rejoined, "will keep them in working order to their dying day." Such food is not more than half digested, and the animal is continually hungry for more. But the hog that is fed warm, cooked food, lies down quietly as soon as he has eaten enough, his food is all soluble, and of course is all digested, and the animal takes on adipose matter very fast, as the foregoing experiment proves.

Some men, in defiance of all chemical laws, ferment the meal that they feed to fattening hogs, feeding it to them after its most fat-forming properties—starch and sugar—have passed into the ascetic state.

FALL MANAGEMENT OF A CLAY-LOAM GARDEN.

I have now, early in November, begun to trench my garden, that the frosts of winter may precipitate the clods that are thrown up into ridges. This not only saves a great deal of labor in the spring, but it also makes the soil absorptive, and of course it is warmed much earlier in the spring for being thus ridged. The manure in the interstices of the clods incorporates with the crumbling mass, thus ameliorating the soil, chemically and mechanically, changing the color of the clay from drab to chocolate, and capable of holding water in available suspension for the wants of the growing plants.

Ik Marvel, in the *Atlantic Monthly*, says: "Fire, air and water bow down and do obeisance to man. They are analyzed and recombined. They are studied with insatiable curiosity; they receive the absorbing attention of a lifetime; daily their secrets are wrested from them. But while these ancient elements are thus wrought into glory and honor, the fourth sister, Earth, remains a clod."

I would ask the eloquent Ik, if the farmer who reduces the *clod* mechanically, while he quickens its falling debris chemically, making it subservient to

his will for the production of maximum crops, is altogether obnoxious to his remarks?

THE SUPERIOR YIELD OF DENT CORN.

Joseph Wright has harvested this season 18 acres of dent corn—the seed corn from the Southwest. He says he never had a larger yield—150 bushels of ears, and over, to the acre. Owing to the small cob and no collar, three bushels of ears gives two of shelled corn. I shelled five pecks of well-dried corn from the ears grown in my garden, on two rods of ground, from seed grown by Wright. I had no ear as large as many of his, or even as large as the ear I planted; but the yield would have been larger had not some of the stalks blown down before the ears had filled. Next season I shall plant in hills, as then the stalks are more self-supporting. Ours is not the corn-growing climate proper, but it is next to it. We have more hot, dry corn weather here than they have on the sea coast three degrees farther south.

Waterloo, N. Y., November, 1864.

PRODUCE OF TWO COWS.

EDS. GENESEE FARMER: I noticed in the November number of the *Farmer* a statement taken from the *Maine Farmer* in regard to the quantity of butter made in a month from two cows; also the number of pounds made from two cows in one week. Those were good cows, but I wish to state that I have two that I think are a little better. I give below the number of pounds of butter made, and the quantity of milk sold and used in the family during the month of May last:

Butter.....	75½ pounds.
Milk sold.....	95 quarts.
Milk used in the family.....	105 quarts.

Estimating the price of butter at 50 cents per pound, the highest price paid in this market, amounts to \$37.78. The price received for milk was 6¼ cents per quart, and estimating the amount used at the same price, amounts to \$12.50. Total amount, \$50.28—not including the sour milk fed to hogs, which I consider of some value.

I intend to give you a statement soon after the first of January next, giving the results for eight months, commencing May first and ending January first, in which I will state the process of making the butter, the food and care of the cows, &c.

A SUBSCRIBER.

ELBA, Genesee county, N. Y., November, 1864.

PENNSYLVANIA and New York raise more buckwheat than all the rest of the United States. In 1860 the total crop in the whole United States and Territories was 17,500,000 bushels; of this Pennsylvania produced 5,500,000, and New York over 5,000,000.

SWING GATE FOR WATER GAPS.

EDS. GENESEE FARMER: I send you a description of abutments and swing gate for water gaps for creeks. I think it a better plan than many others I have seen in use:

1st. The abutments should be made of sound logs. The size should be from six to ten feet square, according to the size of the stream, &c. These should be filled half way up with stone; then lay plank or poles across, resting on the logs, after which fill up the rest of the way with stone. In this way the abutments are held firmly in their place, and will stand against hard freshets.

2d. The gate can be made of common fence boards, hung by heavy wire, which will turn on the pole easier than standards put through turning the pole.

Put up in this way, you have a permanent water gap, one that will last for years without repairing.

FRANKLIN WIGGINS.

Berlin, Ohio, November, 1864.

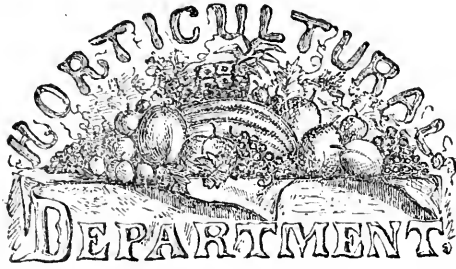
SUPERPHOSPHATE OF LIME FOR TURNIPS.—Levi Bartlett, in the *Country Gentleman*, says:

“Superphosphate of lime has been largely and successfully used by our farmers for the past two or three years; but it is an expensive manure at about \$65 per ton. Abiel Chandler, of Concord, a very successful farmer, manufactures for his own use at a much less cost than he can purchase, and when prepared he knows that it is the real simon pure. I saw in his grounds an experiment in the use of it, on his Swedish turnips. The land was a light sandy soil. The rows having an application of this “home-made” produced a fine crop of large, fair bulbs, four or more inches in diameter, while those in the intermediate drills, having no phosphate, were about the size of butternuts, scarcely worth harvesting. Somehow, superphosphate seems to be one of the most needful manures for the turnip plant.”

COLD STABLES MADE COMFORTABLE.—Western farmers, by driving a few stakes or setting a few posts one foot or eighteen inches from the stable walls, and filling in the intervening space with straw or marsh hay—using a few boards or poles to hold the straw in place—may make their stables warm and stock comfortable—thus making a great saving in the amount of food consumed, to say nothing of the inward satisfaction derived from knowing that the brutes do not suffer from the want of protection from the cold blasts of winter. L. L. F.

THOMAS S. CUSHMAN, of Raymond, Mass., planted thirteen white beans last spring, and the product is three pounds, or 11,568 beans.

THERE is more buckwheat raised in the United States than barley.



AMERICAN POMOLOGICAL SOCIETY.

(Continued from last number, page 349.)

THURSDAY EVENING.

WINTER PEARS.

Dr. WARDER in the Chair.

BEADLE—I have kept winter pears and found no trouble in doing so; but as far as my experience is concerned I do not think them very good.

GRANT—I have kept winter pears, and found that a room suitable for them is one in which the temperature will stand uniformly at about 40°. I will not say that I think they are worth nothing, but they are not so good as a good apple. Easter Beurre keeps well until March. Prince's St. Germain keeps well—perhaps best.

THURBER—Mr. Carpenter picks his Vicars, puts them into barrels and stores them away in the cellar, and in January he will give you about as good a pear as you will want to taste.

FIELD—The Vicar well preserved and well ripened is as good as you can wish. To obtain fine fruit the trees should not be over-cropped. Thin out the fruit when it is small, and through the season pick the pears from it until you have reduced the quantity to one-third of the original crop. If the season should be dry, about the first of September reduce the quantity still more and leave the fruit on the tree until frost comes. I do not barrel this fruit any longer, as I find it early causes spots of rot; but I take them from the trees into a room that is close and damp and that will not freeze, and pour them upon the floor like potatoes, leaving a path between the piles so as to go around and pick out the yellowing pears any time you choose. I can keep Duchess d'Angouleme as long as Vicar of Winkfield, but Vicar is preferable.

MEAD—People in picking apples often sweat them and then wipe them before packing. I think this practice is to be condemned, for there is an oily substance on the skin which serves as a protecting covering, and if this is removed the fruit will decay much sooner. There is a great deal in the room or cellar in which fruit is kept. I have a cellar particularly well adapted to this purpose in all respects. It possesses a comparatively low but even temperature during the whole year, and I have no more difficulty in keeping Vicar of Winkfield through the winter than potatoes or apples. I would name as some of the conditions of a good fruit-room the following: A low temperature—5° or 10° above the freezing point; a moderately dry atmos-

phere and means of ventilation. Ventilation is to be performed only to regulate the temperature and purify the air when foul. It is not necessary to ventilate often, and especial care should be taken to avoid sudden changes.

THURBER—A friend of mine has a stone ice-vault in which he keeps Duchess d'Angouleme and Vicar of Winkfield perfectly until March, but they are worthless.

FIELD—Ripening is a process of nature, and should be interfered with as little as possible. There are some favorable locations where winter pears can be raised well. Rochester is one of these places. There is a great difficulty in raising good winter pears. One cause of this is a delicacy of foliage, which is peculiar to many varieties of them, and which causes the trees to drop their leaves prematurely. There are two difficulties about winter pears; the first is to grow them well, and the second is to ripen them—and the latter is a consequence of the former. I have not seen a specimen of a winter pear which I would prefer to eat to a Newtown Pippin, or any other good apple.

BARRY—We must certainly grow winter pears well before they can be ripened. The Vicar of Winkfield is a good example of this. We find winter pears to be as easily grown as summer pears. Prince's St. Germain will ripen finely by being put into barrels when picked and kept in a cool place—such as an open shed, for instance, until frost comes, and then put into the cellar. Easter Beurre we keep until May. L. F. Allen had said, some years since, that winter pears were a humbug. Happening to call upon us one spring, we cut an Easter Beurre for him, and he gave it up, and took back all he had said. Easter Beurre bears very heavily, and it is necessary to thin out the fruit. Doyenne d'Alencon we think a better pear than Easter Beurre. The Lawrence here is a winter pear, and keeps until January. We opened them last January as yellow as gold—perfectly handsome. Winter Nelis is an early winter pear, keeping until January or February. They can be ripened now by putting them into a drawer in a warm place, but if left on the trees until frost, and then picked, it will keep as I have said. We must not tolerate the idea that winter pears can not be grown or ripened, when they have been grown for so long a time. We often see at the Winter Meeting of the Agricultural Society at Albany twenty or thirty varieties.

FIELD—Thinks winter pears will be found better on heavy or clay soils than on light or gravelly ones. My friend, Mr. Carpenter, on heavy soils is very enthusiastic about them. The Lawrence, Jaminette and Vicar I grow, but they are not winter pears with me.

HOVEY—To be brought to perfection pears must be well grown, and, secondly, carefully picked and then packed away. Pears are social beings like ourselves, and like company. If left alone they dry up. If you have only a few, put them into a barrel in a cool cellar with an even temperature of 40° or 46°. There is no trouble about it. In 1862, having thirty barrels of Vicar of Winkfield and Glout Morecan, I left them out of doors in barrels until the 15th of October, and then put them in the cellar, and I found it was impossible to

get them yellow until February. Without saying more, I will repeat that to succeed with winter pears we must grow them well, pick them carefully, and put them away in a suitable cellar.

NELSON—I think what Mr. Barry has said is true, but it should be taken with some allowance. When I say, as I have said it, that winter pears are a failure, I speak confidently, and I repeat it. Thousands of dollars have been expended without success in trying to raise winter pears. I have had some experience. I have good soil, and have many varieties of winter pears, but not one of them is fit to use. I have given the subject much attention, and have a good fruit-cellar. With Vear of Winkfield I pursue very much the same course as Mr. Field has described, and it ripens after Beurre d'Anjou. Easter Beurre I can ripen only on one side. As far as the great mass of the people are concerned, winter pears will always be a failure; but in some localities, such as this and Boston, they may succeed. I say this so that people may know what to look out for.

BARRY—Mr. Nelson spoke of great quantities of winter pears being planted. The fact is, as I have abundant opportunity to know, very few, comparatively, have been planted, but the number is increasing with the knowledge of the people. And now one word more. Ripe pears should be brought directly from the cellar to the table. Vear of Winkfield presented in this way has a delicious aroma.

BERGEN—I agree with Mr. Field in his remarks. In our locality very few pears can be kept until winter. I am familiar with the method of Messrs. Barry and Hovey, but it is difficult with us to keep any pear until Christmas. Easter Beurre I can keep until March, but the difficulty is to ripen them at all, as they rot in the green state. Doyenne d'Alencon I have kept until February, and ripened it well. It is the best winter pear I have experimented with.

—Mr. Pettengill, of Illinois, tells a story something like this: that a neighbor of his had a little miserable pear that he could never use, as it would not ripen. The tree which produced it had attained considerable size, and bore fine crops, but the fruit had always been of the same worthless character. Mr. P. thought he would like to put some of them into his cellar, with a faint hope that they might prove of some value. He easily obtained the consent of his neighbor to procure as many as he wished of them, and accordingly, one day, passing that way, he filled a bag with them, took them home and emptied them on the floor of the cellar. Soon after this he commenced storing potatoes away in the cellar, and the pears were covered over by them. Nothing more was thought of the pears until sometime in the winter they were accidentally uncovered, and found to be beautifully ripened and of a most delicious quality. As it afterwards proved they were winter Nclis.

FIELD—I have often found, about the first of December, in good condition, Louise Bonne de Jersey, which had fallen to the ground from the trees and been accidentally covered with cabbage or other leaves.

BERENDEEN—One valuable use of winter pears is for cooking purposes.

BARRY—Uvedale's St. Germain I would recommend as a good cooking pear.

FIELD—My friend, Mr. Bergen, is a little crazy on pears. Is it true, then, that the worst pear is the most profitable? Mr. B. has a good many large trees of Uvedale's St. Germain, and he believes it the most profitable pear grown at — per bushel.

HOOPES—The method we pursue with winter pears is to leave the fruit on the trees until there is danger of frost, and then to pick and put it into boxes with alternate layers of straw, and store them in a room off the ice-house and keep them there until they are wanted to ripen; then we put them in the cellar. Columbia we think one of the best winter pears.

BERGEN—I don't agree with Mr. Field in his opinion of the profits of Uvedale's St. Germain. I have found the Bartlett the most profitable pear. Summer Bell, or Windsor, I have found one of the most profitable; have shipped them all to Boston market, and Boston has eaten them.

BARRY—I can confirm what Mr. Bergen says about the Summer Bell. It is a very profitable pear. I understand that in New York it is in great demand for cooking. A good cooking pear, if very productive and hardy, must be profitable.

BERGEN—Mr. Barry has been wrongly informed. The Summer Bell is not used at all in New York as a cooking pear, but as an eating pear. It must be picked before it is mellow and then ripened.

PEARS IN HEDGE ROWS.

FIELD—There has been some curiosity manifested by gentlemen to hear about my experiment of growing pears in hedges. I have found Duchess d'Angouleme capable of being planted closely together, and produce fine specimens of fruit. From my trees standing singly I usually lose considerable fruit by the September gales, but the hedge-row trees are not thus affected. I originally planted these rows four feet apart, with the trees four feet from each other in the rows, but I have since taken out every other row, so that they now stand eight feet apart. I shave with hedge shears to straighten the rows, and the effect is to get rid of a large part of the fruit spurs, so that the fruit does not need much thinning out. What thinning I do is done late in the season, and I get all large specimens— one hundred and seventy pears to the barrel. As to their durability I can not of course yet say much; but so far they grow better every year. I never saw one of these hedge trees die from overbearing. The branches start directly from the ground. I prune early in the spring and in July. Have also hedges of Seckel and Beurre Superfine.

THURBER—I have seen Mr. Field's hedges, and am much pleased with them. I have also seen Bartlett grown this way very fine.

SMALL FRUITS—(RESUMED.)

KNOX—I hope Russell's Prolific will prove more profitable than Triomphe de Gand, but it never can equal it in flavor. I hope that the Agriculturist will surpass them both, for I desire progress. Triomphe de Gand has been much denounced in some quarters, and I should like to hear more from members about it.

The Fillmore bears large crops of fine fruit, and brings a high price in market, and I am surprised that this variety has been as much overlooked as it has.

In answer to a question about distances of planting, Mr. KNOX said: I cultivate in rows which are eighteen inches apart, and the plants twelve inches apart in the rows. Three rows are planted in this way, and then a distance of three feet allowed and then three rows more.

BATEHAM—In company with some other gentlemen, I spent a day at Mr. Knox's place, in June, very pleasantly, and found it also very instructive. Mr. K. is doing a good work for the country by the examples he presents on his grounds. The Triomphe de Gand, as grown by Mr. K., is certainly an excellent berry. I have never seen it elsewhere do so well—but I have never seen it elsewhere so well cultivated. I would place the Fillmore strawberry ahead of Triomphe de Gand—not for quality, but for size and productiveness. It is much ahead of many more highly praised.

BORT—For twelve years I have given attention to strawberry growing, and have fruited sixty varieties, but I have now reduced the number to three—Burr's New Pine, Wilson's and Triomphe de Gand. I usually cultivate about three acres of strawberries. Triomphe de Gand is more hardy, and has stood drouth better and borne better crops than Wilson's Albany, and is a great favorite.

KNOX—Good plowing is all that is necessary for strawberries. The beds should be renewed every three or four years. I give clean cultivation, and protect the beds in winter with straw. My cultivating is all done with a hoe, and never with a cultivator or plow, as I consider that they greatly damage and destroy the roots. To protect plants from being thrown out by frost I cover the plants in the fall with clean straw, and early in the spring uncover them, placing the straw between the rows, which thus answers for a mulch and protects the fruit from dust.

FRENCH'S SEEDLING.

PARRY—This is an accidental seedling, which was found by Mr. French. It has been largely planted in our neighborhood. It is large, of a bright scarlet color, of good quality, and very early. It commands a high price in market. It brought fifty cents a quart until the season was partly gone, and forty cents until the close. It has a perfect flower; is not quite so early as Early Scarlet, but nearly so. It combines the good qualities of Hovey's Seedling and Large Early Scarlet. It is unusually vigorous, and not particular as to locality—doing well either on heavy or light soil. I set out three acres of them on light blowing sand, and also set some other kinds, but French's Seedling is the most vigorous of all.

MEEHAN—Hovey's Seedling, Triomphe de Gand and Wilson's Albany are the most popular varieties in Philadelphia.

UNION.

BRILL—I have thought this variety to be Trollope's Victoria. The party that sends it out claims it to be a new seedling.

BROOKLYN SCARLET.

THURBER—I have never seen a better crop than I have of this variety.

BARRY—I have observed of new strawberries that they promise at first much more than they usually sustain. The fact is, that a new variety is cultivated with great care, and made to produce to the utmost of its limits, and the result is fine crops of fine fruit; but as soon as the novelty wears off, the high cultivation is no longer kept up, and they fall back among the older sorts. In order to arrive at a correct judgment of the value of a new variety, we must wait until we see it reduced down to ordinary cultivation. Almost any kind of strawberry will yield large crops under high cultivation, even the Alpines, which are considered so very poor bearers, with the best treatment will give large crops. As an instance familiar to horticulturists residing here, I would mention the Victoria, which a few years ago, after it had become well known, was taken by an individual and given superior cultivation and produced enormous berries and crops, and was sent out under a new name as a new variety.

BARTLETT.

KNOX—Bartlett and Boston Pine are identical, and I wish to have the Society say so.

THURBER—Mr. Fuller says Bartlett is the same as Boston Pine.

BRILL—Mr. Knox's remarks are well-timed, for Bartlett is only Boston Pine.

A motion was here offered by Mr. Knox that the name Bartlett, as applied to this fruit, be dropped. Carried.

FIELD—The name Bartlett originated in this way: I sold Mr. Bartlett a piece of ground on which he planted some strawberries. A strawberry-grower got this kind from Mr. Bartlett, and sent it out as a new variety and named it Bartlett.

BUFFALO.

BRAGDON—It has been questioned if the Buffalo and Russell's Prolific were not the same. I have them both, and they differ both in foliage and flower.

BRILL—I have fruited the Buffalo this year. It appears slightly different from Russell's, but is quite similar to it.

BRAGDON.—The chief difference I found in the two varieties growing in adjoining fields was that the flavor of the Russell's was more sprightly. It suited my taste better.

At this stage of the discussions, as it was drawing late into the evening, a vote of thanks was offered to the Fruit Growers' Society of Western New York for their entertainment, and the Society adjourned to meet in two years in St. Louis.

TO MAKE LINEN OR COTTON TRANSPARENT FOR GARDEN FRAMES.—Three pints of old pale linseed oil; one ounce of sugar of lead, and four ounces of white resin. The sugar of lead must be ground with a small quantity of the oil, and added to the remainder, and then the resin is to be incorporated by means of gentle heat. The composition is to be laid on with a brush after the calico is nailed to the frames. One coat annually is sufficient. It dries in a short time when exposed to the air, and excludes as little light and heat as any thing except glass.

THE GARDEN IN DECEMBER.

At the close of the season, the garden may be left so as to be a desolate-looking spot through the winter, or it may be cleaned up so as not to be *repulsive*, at least. Gather up all stubble, stalks, and stumps of cabbage, cauliflower, &c., all old vines, and carry them to the compost heap in the barn-yard; and, although it may seem cruel, don't leave any tall weeds for the dear little chickadees to feed upon their seeds through the winter. Better, rather, scatter some bird-seed around for them to feed upon, than to leave such unsightly-looking things in the garden. Rake the ground off clean where there are no growing crops; gather the pea-brush and bean-poles and put them under shelter, the better to preserve them until wanted for use next summer. Put the garden fence in good repair, and not leave broken panels and missing pickets to torment you through the winter. Rake up and save all the leaves that fall about the yard, or from the fine row of maples along the roadside; save every one of them, and what are not needed to cover the strawberries, celery, spinach, or other crops in the garden, will serve a good purpose for bedding for horse, cow or pig, if kept dry.

Take an occasional look into the cellar and out-pit, to see that the fruit and vegetables are not likely to suffer from frost, dampness or heating. Give them an airing in mild, fair days, and a little more protection in extra cold nights, with straw mats or blankets—in short, be vigilant to save in the best possible condition what you have raised at so much cost through the summer and stored up for winter's use.

Now is a good time to lay your plans for next summer's campaign. Perhaps you raised too little of some kinds of vegetables to supply the demands of the family, and more than you needed of some other kinds. Devote, in your plan for next summer, larger plots to those varieties you were deficient in, and curtail those that produced a superabundance. Few families have a full supply of green peas, so long as they desire them; so of green corn, tomatoes and spinach, while they have an over-supply of lettuce radishes and cucumbers. Tastes differ very much in different families, and every one can soon learn what varieties find the best *home market*.

Visit your neighbors in the long winter evenings; compare your different modes of culture; gain wisdom by an interchange of ideas, and agree to try experiments with new varieties—one trying one kind, and another, another kind, and so on, with the understanding that you shall save and exchange seeds of the varieties that prove valuable. And see if you can not agree upon a plan for a grand crusade against the various enemies that are multiplying to

so fearful an extent against all tillers of the soil. Just consider: man is promised dominion over the whole animal creation, yet a large number of his most diminutive subjects are in successful rebellion against him, yearly inflicting heavy losses upon him. How many of the crops cultivated by agriculturists or horticulturists are entirely exempt from the ravages of insects? The midge destroys so large a portion of the wheat crop that the remainder does not pay the cost of cultivation. The corn crop suffers from the cut-worm, the wire-worm and the chinch bug. The grasshopper often destroys the hay crop; and so it happens that about every year *some* of the staple crops of the farmer are wholly or partially destroyed.

And how is it in horticulture? The black-knot and curculio baffle all efforts to raise plums, apricots and nectarines, save in a few favored localities, and are threatening the cherry. The grub gnaws away at the roots of the pear tree, and resists the various devices to dislodge him. The borer still bores into the apple tree, while the apple worm insinuates himself into nearly every apple, impairing its flavor and its beauty. The pear tree blight numbers its yearly victims by the hundreds of thousands, and the currant worm has banished the beautiful and wholesome currant from a majority of the tables of Western New York.

And in the vegetable garden, what labor and watchfulness it requires to save the vines from the persistent attacks of the striped bug and the squash bug! Your radishes are wormy, your cabbages are lousy, the tomato worm preys upon your tomato vines, and anon comes a ravenous army of rose bugs, destroying your roses, grapes, and frequently nearly every green thing in their way.

Thus, nearly every vegetable has its peculiar enemy, and they are multiplying against us to a fearful extent.

Man has *not* dominion over the brute creation—and why? Not because he has failed to put forth his *physical* strength to subdue them. As long ago as the days of Nimrod, man exercised his powers in that direction. It is only by the further development of his mental capacities that he can hope to obtain full ascendancy over the inferior animals. And it is, undoubtedly, to incite, develop and employ our mental powers, that so many obstacles are permitted to oppose us. This earth was not made simply to minister to our animal necessities. We could have been created without animal wants, and placed directly in a spiritual world, if it would have been just as well. But we are placed here on earth encumbered with all our wants and necessities, with a great many difficulties to overcome, because Divine Wisdom knew it to be the best possible condition in

which to develop our spiritual natures and acquaint us with Him. Therefore, the only way we can hope to subdue the earth, and attain to our true position as lord of created things, is by a proper cultivation of our mind. Many educated men have turned their attention to the investigation of the causes of the failures of so many of our most important crops, but thus far without being able to devise a remedy. Entomologists have discovered many of the insects that have proved so injurious to vegetation—have learned much of their habits, mode of propagation, &c., but I am not aware that they have ever pointed out any practical method of destroying any of them. The fact of it is, we shall never make any very great headway against the insect enemies that oppose us, until practical tillers of the earth become educated enough to investigate these subjects for themselves. Those who are brought into daily contact with growing vegetation, are best situated for observing its enemies and devising means of destroying them. We can hardly hope to see the present generation of farmers and gardeners acquire the scientific education requisite to qualify them for the great work before them; but may we not hope that they will inaugurate a system of schools and experimental farms and gardens, that will afford to our posterity the education needed to enable them to grapple with and overthrow our enemies?

Readers of the *Genesee Farmer*: In the long December evenings before you, talk over this important subject, and you may become pioneers in a work that will greatly bless mankind.

P. C. R.

MUSCAT GRAPES.

FROM the old Muscat of Alexandria there have arisen a number of varieties, all bearing high sounding titles, and claiming to be entirely distinct from all others. Whether they were so or not has been a vexed question among horticulturists. Two or three years since, one of the houses at Chiswick were directed to testify this question. Young and healthy vines of the following reputed sorts, proved as far as possible, from authentic sources, being planted, namely:

"It was thought that the best way to test their distinctness was to bring all the varieties together, and to grow them as nearly as possible under the same conditions. This was done; Vines of the same age were planted in the same border, and last year these Vines yielded their first fruits, with very little promise of diversity amongst them. This year they have borne a fair crop, and the suspicion of sameness which was excited last year has been more than confirmed. Excepting only the Canon Hall variety, which stands out prominently from the others, there is no perceptible difference to be found

in the whole series, now that the fruit is matured and fit for table. There are diversities observable, it is true, such as the presence of rounder or more oblong berries, with more or less of looseness or compactness, more or less of shouldering, more or less of tapering elongation in the clusters; but the differences in the berries are here seen to occur indifferently on the clusters of the same Vine, and the difference in the clusters occur indifferently through the whole series of Vines. The only observable difference of flavor is readily traceable to the more or less ripened condition of the particular berry or bunch, and can not in any case be traced as characteristic of the variety. Thus, for all useful purposes, the so-called varieties are identical; nor are there any distinctions to be observed, independent of the fruit, in the wood or in the foliage.

"It appears, however, from observations made during the earlier stages of growth, that although it may have vanished by the time the fruit has matured, there is a difference perceptible in certain cases while development is going on. Some of the kinds are found to set their fruit better—that is to say more abundantly, more uniformly, and more certainly—than other kinds, and this in one sense at least, is to be regarded as an advantage. The better setting kinds are the Bowood Muscat, Tynningham Muscat, and Passe Muscat, which all agree in this peculiarity, and which do not otherwise present any differences among themselves. Perhaps it should also be mentioned that the Charlesworth Tokay was just a shade less ripened than the others, indicating lateness, but the difference was hardly perceptible.

"Those who have no difficulty in 'setting' the old Muscat of Alexandria—and that many growers have not our fruit shows well testify—need give themselves no trouble about the rest. We do not go so far as to say that they are all identical, but we do say the difference between them, if any, are so slight as to be of no practical importance, and are not like those between certain forms of Black Hamburg, distinctly appreciable."—*Gardners' Chronicle*.

GENERALLY speaking, the smaller the quantity of fruit on a tree, the higher the flavor; therefore, thin all fruits in moderation, but avoid excess; a single gooseberry on a tree, or a single bunch of grapes on a vine—no matter how fine it may be—is a disgrace to good gardening.

THOUGH rapid growth is desirable in succulent vegetables, this is not the case with most flowering shrubs, which form bushy, and therefore handsomer plants when grown slowly.

SHENGL mentions a rose tree, still living, which is upwards of one thousand years old.

Indies' Department.

AIR AND MORALS.

Mrs. STOWE in her last number of the "House and Home Papers," has some good and some impracticable ideas about houses. She thinks a good sermon on oxygen "might do more to repress sin than the most orthodox discussion to show when and how and why sin came." We can not agree with the school of religionists who put all our faith and love under the control of the stomach, and make bad air the source of more evil than bad hearts. But there is no doubt much truth in what she says of the influence which such physical facts have on our minds. As the ventilation of houses mainly depends upon women, we give our readers the benefit of some of Mrs. Stowe's suggestions on this subject:

"Little Jim, who, fresh from his afternoon's ramble in the fields, last evening said his prayers dutifully, and lay down to sleep in a most Christian frame, this morning sits up in bed with his hair bristling with crossness, strikes at his nurse, and declares he wont say his prayers—that he don't want to be good. The simple difference is, that the child, having slept in a close box of a room, his brain all night fed by poison, is in a mild state of moral insanity. Delicate women remark that it takes them till eleven or twelve o'clock to get up their strength in the morning. Query—Do they sleep with closed windows and doors, and with heavy bed-curtains?"

"The houses built by our ancestors were better ventilated in certain respects than modern ones, with all their improvements. The great central chimney, with its open fireplaces in the different rooms, created a constant current which carried off foul and vitiated air. In these days, how common is it to provide rooms with only a flue for a stove! This flue is kept shut in summer, and in winter opened only to admit a close stove, which burns away the vital portion of the air quite as fast as the occupants breathe it away. The sealing-up of fireplaces and introduction of air-tight stoves may, doubtless, be a saving of fuel: it saves, too, more than that; in thousands and thousands of cases it has saved people from all further human wants, and put an end forever to any needs short of the six feet of narrow earth which are man's only inalienable property. In other words, since the invention of air-tight stoves, thousands have died of slow poison. It is a terrible thing to reflect upon, that our Northern winters last from November to May, six long months, in which many families confine themselves to one room, of which every window-crack has been carefully calked to make it air-tight, where an air-tight stove keeps the atmosphere at a temperature between eighty and ninety, and the inmates sitting there with all their winter clothes on become enervated both by the heat and by the poisoned air, for which there is no escape but the occasional opening of a door.

"The perfect house is one in which there is a constant escape of every foul and vitiated particle of air

through one opening, while a constant supply of fresh out-door air is admitted by another. In winter, this out-door air must pass through some process by which it is brought up to a temperate warmth.

"Take a single room, and suppose on one side a current of out-door air which has been warmed by passing through the air-chamber of a modern furnace. Its temperature need not be above sixty-five—it answers breathing purposes better at that. On the other side of the room let there be an open wood or coal-fire. One can not conceive the purposes of warmth and ventilation more perfectly combined.

"When we speak of fresh air, we insist on the full rigor of the term. It must not be the air of a cellar, heavily laden with the poisonous nitrogen of turnips and cabbages, but good, fresh, out-door air from a cold air pipe so placed as not to get the lower stratum near the ground, where heavy damps and exhalations collect, but high up in just the clearest and most elastic region.

"The conclusion of the whole matter is, that, as all of man's and woman's peace and comfort, all their love, all their amiability, all their religion, have got to come to them, while they live in this world, through the medium of the brain—and as black, uncleansed blood acts on the brain as a poison, and as no other than black, uncleansed blood can be got by the lungs out of impure air—the first object of a man who builds a house is to secure a pure and healthy atmosphere therein.

"Therefore, in allotting expenses, set this down as a *must-be*: "Our house must have fresh air—everywhere, at all times, winter and summer." Whether we have stone facings or no—whether our parlor has cornices or marble mantels or no—whether our doors are machine-made or hand-made. All our fixtures shall be of the plainest and simplest, but we will have fresh air. We will open our door with a latch and string, if we can not afford lock and knob and fresh air too—but in our house we will live cleanly and Christianly. We will no more breathe the foul air rejected from a neighbor's lungs than we will use a neighbor's tooth-brush and hair-brush. Such is the first essential of 'our house'—the first great element of human health and happiness—AIR."

PLAIN CORN STARCH PUDDING.—Set upon the fire one quart of milk; take three tablespoonfuls of corn starch, and mix with a very little cold milk, with some sugar, and a little lemon juice. Pour it to the boiling milk, stirring briskly for two or three minutes. Pour it into a mold and set to cool.

SAUSAGES.—Sausages can be made by using mutton instead of pork. Chop lean and fat mutton together very fine, and season with sage, salt and pepper. Eat with mustard, and they can not be distinguished from the genuine pork sausages.

CREAM SPUNGE CAKE.—Beat [two eggs in a teacup, fill the cup full with thick sweet cream, one cup of white sugar, one of flour, one teaspoonful of cream-tartar, half a one of soda, season with lemon, bake in a long tin.

Young People's Page.

In the July number of the *Genesee Farmer* we gave a game of Words, which we thought might interest our young readers, and were pleased to receive the following response the same month from a correspondent. A press of other matter has crowded out our Youth's Page for the past few months, but now we take pleasure in giving to our young friends this game, and some extracts from that very interesting little monthly, *Merry's Museum*, which we wish they all had to read for themselves.

ILLUSTRATED.

Adieu.	Iris.	Side.
Adit.	Is.	Sideral.
Adult.	Isle.	Sill.
Adulter.	It.	Sir.
Adure.	Lad.	Sive.
Adust.	Lade.	Sit.
Adusted.	Ladle.	Site.
Aid.	Laid.	Situate.
Aider.	Lain.	Slate.
Al.	Laird.	Sled.
Air.	Lard.	Slid.
Aisle.	Last.	Slide.
Alas.	Late.	Slur.
Alder.	Latitude.	Slut.
Ale.	Latten.	Stain.
Alert.	Laud.	Stale.
All.	Laurel.	Stall.
Allude.	Lea.	Star.
Allure.	Lead.	Stare.
Altitude.	Least.	Start.
Are.	Lest.	Startle.
Arid.	Lct.	State.
Aries.	Liar.	Statue.
Arietta.	Lid.	Stature.
Arise.	Lie.	Sile.
Ant.	Lieu.	Still.
Artist.	List.	Stir.
Artulate.	Lit.	Strait.
As.	Literal.	Stride.
Astride.	Litter.	Strut.
Aside.	Little.	Stud.
Astral.	Lull.	Sue.
At.	Lure.	Suet.
Atilt.	Lust.	Suiter.
Atlas.	Lustral.	Surd.
Audit.	Lustre.	Sure.
Dale.	Lute.	Sutler.
Dallien.	Radus.	Sural.
Dare.	Rail.	Tail.
Dart.	Raise.	Talc.
Date.	Rase.	Tall.
Deal.	Rasure.	Tar.
Dear.	Rat.	Tare.
Deist.	Rate.	Tart.
Dell.	Rattle.	Taste.
Detail.	Read.	Teal.
Deal.	Real.	Tear.
Die.	Red.	Teat.
Dier.	Resail.	Tell.
Diet.	Rest.	Test.
Dilate.	Result.	Tide.
Dir.	Retail.	Tie.
Dir.	Retard.	Tier.
Dir.	Rid.	Tile.
Drill.	Ride.	Till.
Dual.	Rill.	Tiller.
Due.	Rise.	Tire.
Duel.	Raid.	Tittle.
Duet.	Rite.	Titular.
Dull.	Ritual.	Trade.
Dnst.	Rude.	Trader.
Durst.	Rue.	Trat.
Ear.	Rule.	Tread.
Earl.	Rust.	Treat.
Easc.	Rustle.	Trellis.
Eat.	Rut.	Trial.
Edile.		

Elate.	Sad.	Tread.
Eld.	Sail.	Trite.
Ell.	Sale.	Trill.
Era.	Salt.	True.
Erst.	Salute.	Trull.
Etui.	Sate.	Trust.
Idea.	Satire.	Turtle.
Idea.	Sea.	Tutelan.
Idle.	Seal.	Us.
Idler.	Sear.	Use.
Ill.	Scat.	Usual.
Illude.	Sell.	Utter.
Ire.	Set.	

OAKS PLANTED BY SQUIRRELS.

It is a curious circumstance, and not generally known, that most of the oaks which are called spontaneous are planted by the squirrels. The little animal has performed the most essential service to the British navy. A gentleman walking one day in a wood, belonging to the Duke of Beaufort, near Treyhouse, in the county of Monmouth, had his attention diverted by a squirrel, which sat very composedly upon the ground. He stopped to observe his motions; in a few moments the squirrel darted like lightning to the top of a tree beneath which he had been sitting. In an instant he was down with an acorn in his mouth, and began to burrow in the earth with his paws. After digging a small hole, he stooped down and deposited the acorn, then covering it, he darted up the tree again. In a moment he was down with another, which he buried in the same manner. This he continued to do as long as the observer thought proper to watch him. The industry of this little animal is directed to the purpose of securing himself against want in winter, and as it is probable that his memory is not sufficiently retentive to enable him to remember the spots in which he deposited every acorn, the industrious little fellow no doubt loses a few every year. The few spring up, and are destined to supply the place of the parent tree. Thus is Britain in some measure indebted for her mercantile greatness to the industry and bad memory of a squirrel!—*Merry's Museum.*

DON'T DESPISE SMALL THINGS.—Some years ago a gentleman visiting a farmer took from his pocket a small potato, which somehow had got in there at home. It was thrown out with a smile, and the farmer taking it in his hand to look at it, a curious little boy of twelve standing at his elbow asked him what it was. "Oh," said he, "nothing but a potato, my boy; take and plant it, and you shall have all you can raise from it till you are free." The lad took it, and the farmer thought no more about it at the time. The boy, however, not despising small potatoes, carefully divided it into as many pieces as he could find eyes, and put them into the ground. The product was carefully put aside in the fall and planted in the spring, and so on till the fourth year, when the yield being good, the actual product was four hundred bushels! The farmer seeing the prospect that the potato field would, by another year, cover his whole farm, asked to be released from his promise! Let us not despise small things.—*Merry's Museum.*

LITTLE sticks help better than large ones to kindle the fire.



THE GENESEE FARMER FOR 1865.

REDUCTION OF PRICE IN CLUBS.

WE are desirous of extending the circulation of the GENESEE FARMER next year. From the kind feelings expressed in the numerous letters we have recently received, we think our friends are disposed to make an earnest effort to increase our subscription list for the next volume. In order to favor the movement as much as possible, we have concluded to reduce the price of the GENESEE FARMER to eighty cents a year in clubs of five and upwards.

Our terms for 1865 will be: Single copies GENESEE FARMER, \$1.00; 5 copies for \$4.00, with a copy of the RURAL ANNUAL AND HORTICULTURAL DIRECTORY for 1865 to the person getting up the club; 10 copies for \$8.00, with an extra copy of the FARMER and RURAL ANNUAL to the person who gets up the club.

Larger clubs at the same rate, or eighty cents a year.

The price of the RURAL ANNUAL will be as hitherto—twenty-five cents.

In clubs of five and upwards, the RURAL ANNUAL and GENESEE FARMER together will be furnished for one dollar each.

These terms bear no proportion to the present high price of paper. We are induced to put down the price of the FARMER and RURAL ANNUAL in hopes that all our friends will use their influence to extend our subscription list for the coming volume. Everything depends on them. We have no paid agents. We rely entirely on the voluntary efforts of those true friends of agricultural and horticultural improvement who are willing to use their influence to encourage the circulation of agricultural journals. We can not afford to hire men to canvass for subscribers. What we wish is, that those who take the GENESEE FARMER would make a special effort at this time to introduce the FARMER more extensively into their respective neighborhoods. By so doing they will put us under renewed obligations, and we shall endeavor to make the FARMER more than ever worthy of their good will and patronage.

Send for a Subscription List.

EVERY reader of the GENESEE FARMER is requested to act as Agent in obtaining and forwarding the names of subscribers. Those who are willing to do so, can obtain subscription lists, showbills, &c., which may aid them in getting subscribers. Those of our readers who are willing to act as Agents for the FARMER would oblige us by informing us of the fact. There are certainly few of our readers who can not get up a club of five.

Premium for Farmers' Wives and Daughters.

To any lady who will send us thirty-five subscribers at one dollar each, or sixty subscribers at eighty cents each, we will forward, free of charge, one of DOTY'S WASHING MACHINES. This machine has been used in our family for several months, and proves every way excellent. Its retail price is \$14.00.

Though we offer this Premium especially for the ladies, we shall have no objection to their taking a gentleman with them when they ride round to their neighbors to show them a copy of the paper. He can hold the horse while the lady goes into the house! In this way the thirty-five subscribers may be got in a few hours. We know a young man who rode round among his neighbors last year and got twenty-six subscribers to the GENESEE FARMER in an afternoon. Let us see how many ladies can get a Washing Machine. We should like to distribute five hundred of these excellent machines among the ladies who take an interest in the GENESEE FARMER. The machine will be sent immediately on the receipt of the club of subscribers. The club need not be all at one post-office. In this case, as in all others, the papers will be sent to as many post-offices as is desired.

The Rural Annual and Horticultural Directory for 1865.

THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY for 1865 will be ready in a few days. We believe it will be found in no way inferior to any previous volume.

The price will be, as hitherto, twenty-five cents. It will be sent prepaid by mail to any address on receipt of price. Every reader of the GENESEE FARMER should have the RURAL ANNUAL AND HORTICULTURAL DIRECTORY for 1865. In clubs of five and upwards the FARMER and RURAL ANNUAL will be furnished at one dollar for the two.

In all cases we prepay the postage on the RURAL ANNUAL, so that subscribers will receive it free of postage.

To Young Men.

FARMERS' sons who wish to become good writers should not overlook our offer to send a complete set of the "Babbitonian Penmanship" to those who get up a club of ten subscribers to the GENESEE FARMER at eighty cents each. Get up a club; learn to become a good penman; keep your father's books; and write occasionally for the GENESEE FARMER.

JUST as we were going to press, we received a letter from our old friend Dr. Daniel Lee, who for so many years was editor of the GENESEE FARMER. Dr. Lee was appointed Professor of Agricultural Chemistry in the Georgia University, and took up his residence at the South. He is now in Washington. We shall publish his letter in the next number of the FARMER. His old friends will be glad to hear from him.

THE guano imported into Great Britain in 1863 cost over twenty-six millions of dollars in our currency.

The Markets.

SINCE our last report, Gold, which was then 216, advanced as high as 260, and carried up the price of all we have to buy and sell. For the last week or ten days Gold has fallen rapidly. It is now (Nov. 23) down to 222. There is quite a panic among the speculators. Many think it will be lower still, while others claim that there is now one thousand millions of paper money in circulation, while before the war one hundred and fifty millions was all that was needed to carry on the business of the country, and consequently as long as there is such a redundancy of paper money Gold must command a very high premium.

There can be no doubt that we have double the amount of paper money that is needed to carry on the legitimate business of the country. Whether it will be possible to reduce it without shaking our financial system to its very foundation, is very doubtful. The Government is anxious to keep down the price of gold, but at the same time it must have money to carry on the war. If it issues more paper money, gold will advance, and all that Government has to buy will advance also. It reduces the currency we should have a tight money market, and this is unfavorable to the sale of Government Bonds. It is scarcely possible for gold to remain for any length of time below 200. It may temporarily go lower, but as long as the war lasts, and we spend money at the rate of two or three millions a day, high prices must continue.

Hogs continue in active demand at advanced rates. Corn-fed bring $12\frac{1}{2}$ c. $\text{\$}$ lb., live weight, in New York, and $15\frac{1}{2}$ c. dressed. In this city, dressed Hogs sell for 13c. to 14c. In the country, $10\frac{1}{2}$ c. live weight is freely paid.

Corn in Buffalo brings \$1.80 $\text{\$}$ bush., and in Chicago \$1.40; in New York it is quoted at \$1.75 to \$1.85. These prices indicate that there is little surplus Corn in the West.

Potatoes proved a much larger crop than was anticipated. They are now relatively cheaper than any other farm produce. In New York, Peach-blows bring \$2.25 @ \$2.75, and Mercers \$3 @ \$3.50 $\text{\$}$ barrel.

Beans are a shade lower, selling in New York for \$1.50 to \$2.45, according to quality.

At the last New York Cattle Market, Beef Cattle advanced fully half a cent a pound. There is still a great difference in the price of inferior, medium and prime Cattle. The former sell for as low as 7c., the medium for 15@16c., and the latter for 18c. $\text{\$}$ lb., dressed weight.

Sheep bring from 6c. to $9\frac{1}{4}$ c. $\text{\$}$ lb., live weight, according to quality.

Milch Cows continue dull, but it is thought the greatest depression has been reached, and that they will be higher. They are quoted at from \$30 to \$100.

Timothy Seed, \$4.50 @ \$5 $\text{\$}$ bush.; Clover, 20 @ 21c. $\text{\$}$ lb.; Flax Seed, \$3.50 @ \$3.60 $\text{\$}$ bush.

Turkeys, dressed, 17 @ 19c. $\text{\$}$ lb.; live, 15 @ 16c. Chickens, dressed, 16 @ 18c.; live, 15 @ 16c. Ducks, dressed, 16 @ 21c.; live, 8c. @ \$1.12 $\text{\$}$ pair.

Butter is scarce and higher; the range is from 38c. to 60c., Cheese, 18 @ 25c.

Importance of Good Farming.

AT no time in the history of the country was *good agriculture* so essential to our national prosperity as now. All intelligent farmers understand this, though few realize how pressing is the necessity for a determined and united effort to increase our agricultural products. The last Census (1860) shows that even in the loyal States our principal agricultural products do not keep pace with the increase in our population. We do not raise as much to each person as we did in 1850. This was before the war. Since then, the abstraction of labor from agriculture must have seriously lessened our crops, and should the war continue another year the deficiency will be still greater. Even if we have peace, a large army will be needed for some time, and the demand for our products will still be nearly as great as now.

But we have an article on this subject in another column. All that we would say here is, that farmers should not only individually make an effort to raise larger crops, but should do all they can to induce their neighbors to increase their crops also.

Farmers' Clubs should be formed, where this subject and others connected with an improved system of farming could be talked over. They will do much good. A generous spirit of emulation will be awakened, which will impart new life and energy to our operations. It may be considered a wild estimate, but we have no doubt that a good Farmers' Club, in almost any town that might be named, in five years would add one million of dollars to the actual wealth of the town.

Those who hold "Town Bonds" should see to it that a Farmers' Club is established at once. If farmers were only sufficiently aroused to the importance of a better system of agriculture, there need be no fears that we shall not be able to meet all the obligations which we have incurred or are likely to be called upon to incur, even should the war be protracted for several years.

Next in importance to a Farmers' Club is a good Farmers' Paper. We need both. In conclusion, we would say to every intelligent reader of the GENESEE FARMER: Form a Farmers' Club in your town at once, and also a Club for the FARMER.

Form Clubs—Form Clubs—Form Clubs!

WE would call the attention of all our readers to the list on the last page of the liberal premiums offered to those who form clubs for the FARMER and RURAL ANNUAL for 1865.

We need not point out the advantages of forming clubs. By so doing each member of the club will receive the FARMER and a copy of the RURAL ANNUAL AND HORTICULTURAL DIRECTORY for 1865 for the price of the FARMER alone.

Let our friends form clubs at every postoffice where the FARMER is now taken. We have put down the price of the FARMER to the very lowest point at which it can be published. We hope our readers will appreciate this fact, and double our list for 1865. The postage on the FARMER in clubs is only four cents a year. To single subscribers it is twelve cents a year.

Notes on the Weather from October 15th to November 16th, 1864.

THE mean heat of the last half of October was 41 0°, or one degree below the general average. As the first half was 2.2° below, the mean of the month was 1.6° below, or was 46.5°. We had frost on the 18th, 20th, 22d, and hardest frost on the 26th. At the beginning of the rain on the 28th, the barometer had fallen from 29.56 inches on the 26th to 28.78 inches on the noon of the 28th, when the mercury began to rise, and stood at 29.46 inches on the night of the 30th. The rain continued, and in three days there fell 3.42 inches of water. In the whole month there fell 5.61 inches—a large amount for the month, and much above the average.

The unpleasant weather continued to the end of the month; few clear times of observation; much deep, cloudy weather, and rainy days in succession. The earth seemed to swallow the water as it fell, and the Genesee rose less than was feared, though it was high. Barometer below the average for the month.

NOVEMBER began cold, and has continued cool through this first half. The warmest noon 68°, and warmest day, 64.7°, was the 9th. The coldest was 26° in the last two mornings of this half; and the coldest day was 30°, on the 14th. The mean heat was 39.5°, or 1.7° below the general average. We had another large rain on the 4th and 5th, 1.05 inches, and quite a rain, on the 8th and 9th, of 0.77 inch. Some snow on the 12th and 13th, and on the night of the 14th and morning of the 15th about 2½ inches deep, which melted very little, but yielded 0.31 inches water. This snow was a good protection from cold to the abundance of potatoes yet undug.

We had high wind from the southwest on the 10th, and some on the 11th, and a severe gale has prevailed on the lakes—Michigan, Huron, Erie and Ontario—from the 10th to the 12th, and vessels have been injured or lost on each of them. Rain or snow has fallen on ten of these fifteen days; cloudy days and raw wind; unpleasant. Harvesting of potatoes impossible in many fields. Hopes for the Indian summer have not quite deserted the land.

The barometer fell from 29.54 inches on the 3d to 28.48 inches on the noon of the 4th; then rose rapidly to 29.26 on the noon of the 5th. The rain was from the southeast, here. The barometer still ranges below the average. Water in the half month, 2.13 inches.

A SOLDIER IN THE UNION ARMY at Atlanta, Ga., sends for the GENESEE FARMER, and asks us, "Which is the best and most practical work on Agricultural Chemistry?" The last accounts from Sherman would indicate that our correspondent is not likely to have much leisure to study chemistry the coming winter, but it is cheering to us to know that the thoughts of our farmers' sons in the army are sometimes turned to the study of agricultural science. If our correspondent has mastered the general principles of agricultural chemistry, "Boussingault's Rural Economy" will prove as useful to him as any work we are acquainted with. It is at once scientific, practical and reliable.

Last Words.

THIS number of the FARMER is the last of the volume for 1864. But as one closes another opens. The first number of the New Volume will be issued earlier than usual, so that we can fill all orders as soon as they are received.

We should be particularly obliged if our agents and other friends would send in their subscriptions as early as possible. It is a great advantage to us. Could we afford it, we would offer a premium to every old subscriber who renewed his subscription before the 15th of December.

Our Mailing Books are ready for the new names. The old ones we have retained. We do not wish to strike a single name from our list. It will not be our fault if a black line is drawn through any of them. But as we adhere strictly to the cash in advance system, we can not send the January number until it is ordered. When we are mailing the first number of the New Volume we trust, kind reader, that after *your* name we shall find written—"Paid for 1865."

Learning to Write without a Teacher.

MESSRS. BABBITT & WILT, of the Miami Commercial College at Dayton, Ohio, have adopted a system by which persons can learn to write without a teacher. They send one hundred copies, on self-explaining cardboard copy slips for \$1.50. We have examined the system, and think it well designed to accomplish the object.

We have made arrangements for procuring complete sets of these copies, with everything complete, and propose to send one of them to any young man who will get ten subscribers to the GENESEE FARMER at our lowest club rates of eighty cents each. Those who wish this valuable premium, will please mention the fact when sending in the club.

The Genesee Farmer in Canada.

As long as the present premium on gold continues, the price of the GENESEE FARMER to Canadian subscribers will be: Single subscribers, fifty cents a year; in clubs of five or upwards, forty cents a year.

Our premiums to those who form clubs will be the same as to those in the United States.

If American money is sent, our terms will be: Single subscribers, \$1.00 a year; in clubs of five and upwards, eighty cents a year.

We shall, in either case, prepay the American postage without extra charge.

Kidder's Bee Hive.

In our account of the New York State Fair we omitted to notice the bee-hive of K. P. Kidder, of Burlington, Vt. Mr. K. was on hand as usual, exhibiting his hive and a new hand-loom, and attracting much attention from his power over bees. He publishes a little pamphlet called the "Secrets of Bee-keeping," which any of our readers can obtain by sending fifteen cents in a letter addressed as above.

Inquiries and Answers.

BEING a subscriber to the FARMER, I take the liberty to intrude a little upon your time and patience, and hope you will excuse me for so doing. In the first place, I propose to build a farm house for myself next summer, and am in want of a suitable plan to work from. I want one that will be convenient for the wife to manage without the aid of much hired help, and therefore need some advice, and apply to you for it. It is simply this: Some time since I saw a book advertised which treated of farm buildings by a man named Allen. I think said book gave plans, specifications, &c. If you can inform me where I can get a work of that kind I should be very much obliged. (a)

Also, I want a little information about barometers. Are they of any use to the farmer? If so, I wish to know which, among the many, is the best kind for practical purposes, &c., and where they are to be obtained. (b)

Again, about the White Willow for hedges. Do you know whether it makes a substantial fence, or is it a catch-penny? If it makes a good fence, how long time is required to grow it, &c.? (c)

Any information on the above matters will be thankfully received.—CHESTER RANDALL, *Blissfield, Lenawee county, Mich.*

(a) You can get Allen's work on Rural Architecture by addressing William Wood & Co., No. 61 Walker street, New York. As the subject is one of general interest, we should be glad if some of our readers would give their views of the matter.

(b) Barometers will show the density of the atmosphere correctly. This is all that they will do. When the atmosphere becomes drier and heavier the quicksilver in the barometer rises, and as the atmosphere becomes moister and lighter the barometer falls. How far these changes in the atmosphere can be relied upon to indicate a change in the weather is the real question which determines the value of the barometer. There is no absolute certainty on this point. All that can be said is, that, as a general rule, the barometer rises previous to dry weather and falls previous to rain. We think barometers are very useful on a farm. No farmer who has been accustomed to one will be without it.

(c) We think the White Willow will prove useful as a wind-break in exposed situations; but there is some uncertainty as to its value as a plant for fencing purposes.

I WOULD like your opinion as to what kind of a live fence is the best to plant on the west side of a young orchard, to act as a wind breaker. The Hawthorn won't answer; the grubs kill it, and they get in the Locust some too. Please answer through the *Farmer*.—J. A., *Yates County, N. Y.*

If you want a fence as well as a wind-break, it is not easy to answer your question. What is the best plant for a live fence is still a matter of doubt. The Osage Orange has some advantages, but in this section it is apt to winter kill, and at the best requires considerable labor to trim it and keep it in order. If, however, you have tried the Hawthorn and Locust, we know of nothing better than the Osage Orange. For a screen alone, the American Arbor Vite is excellent. It grows rapidly, and being an evergreen, makes a perfect screen—better even than a tight board fence. The Norway Spruce also makes a good screen.

WILL some of the correspondents of the FARMER be kind enough to tell what is good for this case: I have a pair of white Muscovy ducks in apparently excellent

health, but with an unaccountable weakness of the legs—totally unable to stand at all, and yet they eat well and seem well. They are this spring's hatching.—RENFREW, *Pembroke, C. W.*

MR. GEORGE H. CORRY, of Corryville, Erie county, Penn., appreciates the GENESEE FARMER. Under date of November 6 he writes: "Enclosed please find one dollar for my subscription for 1865. I would not be without the paper for five dollars a year, as I get enough information out of every number to more than repay me the expense." Such words of encouragement are particularly gratifying. As yet we have not had a single complaint in regard to the slight advance in the price of the FARMER. We shall be sorry to miss a single name from our list of subscribers in 1865. We have endeavored to furnish a good paper for the past year, but propose to make a much better one for 1865. We hope all our friends will subscribe early.

ADVERTISEMENTS.

A FEW short advertisements of interest to farmers—and only such—will be inserted in the GENESEE FARMER at twenty-five cents a line, or \$2.50 per square, or \$25 per column, each insertion, payable in advance.

S. M. PETTENGILL & CO.,

No. 27 Park Row, New York, and 6 State street, Boston, are our Agents for the GENESEE FARMER in those cities, and are authorized to take advertisements and subscriptions for us at our lowest rates.

THE GENESEE FARMER:

A MONTHLY JOURNAL OF AGRICULTURE AND HORTICULTURE.

Published at Rochester, N. Y., by

JOSEPH HARRIS.

Terms—INVARIABLELY IN ADVANCE—One Dollar a year.

FOR SALE—JENNY COLTS and pure bred RAT TERRIER PUPS—Black and Tan.
J. A. CARPENTER, Cobden, Ill.
dec11*

MADE FROM 20 CENTS!—Call and examine, or ten samples sent free by mail for 20 cents. Retail for \$2 by R. L. WOLCOTT, 170 Chatham Square, N. Y. my'64-1y

\$70 A MONTH!—I want Agents everywhere, at \$70 a month, expenses paid, to sell *Fifteen Articles*, the best selling ever offered. Full particulars free. Address, OTIS T. GAREY, Biddeford, Maine. dec3t

STRAWBERRY AND LAWTON BLACK-BERRY PLANTS—For sale on two years credit without interest by EDMUND MORRIS, Burlington, N. J., October, 1864. nov2t*

CRANBERRY PLANTS—Of the Bell, Cherry and Bugle varieties. Send for Circular giving mode of culture, price, &c. Also, manufacturer of *Grafting Wax and Tree Varnish* for cuts and bruises on trees. A sure protection from Weather, and will heal sound wood. The Wax is also valuable for sealing Fruit Bottles. For sale by F. TROWBRIDGE, Milford, Conn. oct6t



THE CELEBRATED CRAIG MICROSCOPE.—Combining Instruction with Amusement, is mailed, prepaid, for \$2.50; or with 6 beautiful Mounted Objects for \$3.25; with 24 Objects, \$5.50, by HENRY CRAIG, 180 Centre street, New York.

Also, he will mail, prepaid, the Novelty Magnifying Glass, for examining Living Insects, Seeds, Flowers, &c., for \$1.50; or with 12 beautiful Mounted Objects for \$3. je'63t

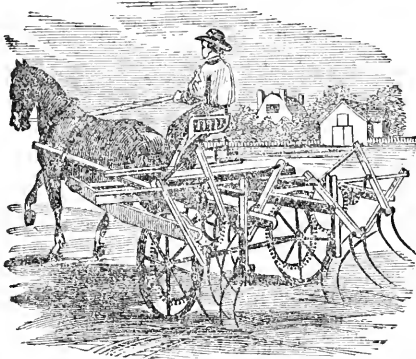
THE BOWEN MICROSCOPE!

MAGNIFYING 500 TIMES—MAILED EVERYWHERE FOR 50 CENTS. THREE FOR \$1. Address F. H. BOWEN, Box 220, Boston, Mass. oct31*

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FORTY ACRES OF WOOD-LAND—Heavily timbered, near Wyandotte, a few miles from Detroit, Mich. Will be sold cheap. JOSEPH HARRIS, Rochester, N. Y.

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PATENT HAY TEDDER,

Or Machine for Spreading and Turning Hay.

THE subscriber having purchased the exclusive right for manufacturing and selling (for the State of New York)

Bullard's Improved Hay Tedder,

now proposes to furnish the Farmers to the extent of his ability, which must necessarily be limited the coming year, owing to the difficulty of obtaining good and competent mechanics.

Those who desire to avail themselves of one of these great labor-saving machines will please send in their orders early to be recorded in turn. "First come, first served." Address

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D. R. BARTON, Rochester, N. Y., Agent. ap'64-1y

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FOR MAKING THE

TURKISH RHUBARB WINE.

HAVING grown this plant extensively, and having direct business communications with importers, I am prepared to furnish the roots in such quantities as may suit purchasers. Also, the WINE.

Agents wanted. Address. H. B. BAILEY, Andover, Ct. oct'64

AMMONIATED PACIFIC GUANO.

A REAL GUANO, containing from seventy to eighty per cent. of Phosphate of Lime, to which has been added by a chemical process a large percentage of Ammonia, so fixed that it can not evaporate, making it equal, if not superior, to any other fertilizer.

Price, \$80 per nett tun. A liberal discount to the trade. Pamphlets, with copies of analysis by Dr. Jackson, Massachusetts State Assayer, and Dr. Liebig, of Baltimore, and testimonials from Scientific Agriculturists, showing its value, can be obtained from J. O. BAKER & CO., Selling Agents, 131 Pearl street, New York. oct'64

TO FARMERS!

BRADLEY'S TOBACCO FERTILIZER, AND BRADLEY'S X L Superphosphate of Lime, are for sale at wholesale and retail by the Manufacturer. WM. L. BRADLEY: Sales Office 24 Broad street, Boston.

Pamphlets containing testimonials in favor of his Tobacco Fertilizer, Bradley's X L Manual on the Culture and Curing of Tobacco, with Illustrations, can be had by addressing the undersigned. WM. L. BRADLEY.

Highest Cash prices paid for Bones. my

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DEPTFORD AND BARKING CREEKS, } { No. 1 ADELAIDE PLACE, }
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WHEAT,
CORN,
GRASS, and
VEGETABLES of all kinds.

Farmers and Agriculturists from all parts of the country will be supplied on the most liberal terms, and all orders and inquiries promptly attended to.

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THE BEST AND CHEAPEST FARMING LANDS IN THE WHOLE WEST, ARE THOSE OF NORTHERN MISSOURI.

REBELS are moving away, and are selling for whatever they can get. An extensive immigration from the Northern States and from Europe already begun, will soon occupy that part of the State and develop its immense natural wealth. Free and full information given on application to

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STRAWBERRY PLANTS A SPECIALTY.

Fruit Trees, Vines, Shrubs, Garden Seeds, &c. Catalogues on application. sept'64

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THE BULL HOTSPIR 4080 A. H. B. by Duke of Gloster (11382) dam Daphne (imported) by Harold (10,299), rich roan, calved May 15, 1860. Also, three YEARLING BULLS and five BULL CALVES, mostly by Hotspur, and a few HEIFERS.

Catalogues sent on application. T. L. HARRISON, Morley, St. Lawrence co., N. Y. ap'64

STAMMERING.

STAMMERING—Cured by Bates Appliances. For Descriptive Pamphlet, &c., address

oct'64 H. C. L. MEARS & CO., 277 W. 23d street, New York.

GREEN'S PATENT ROOFING—Consists of a stout Canvas, impregnated with a Water-Proof and Fire-Proof Compound, covered on both sides with a stout fabric made water proof by a solution of INDIA RUBBER, and hardened by a coating of PATENT METALIC PAINT.

It is both WATER-PROOF and FIRE-PROOF. It rolls up and unrolls like a piece of thin oil-cloth. It makes the best and most durable READY ROOFING ever introduced.

It is designed for Dwelling-houses, Barns, Sheds, Steamboats and Railway-cars.

It can be laid down by any sensible workman. It is CHEAPER than any known Roofing of equal durability. nov'64 HENRY SMITH, 129 Pearl st., New York.

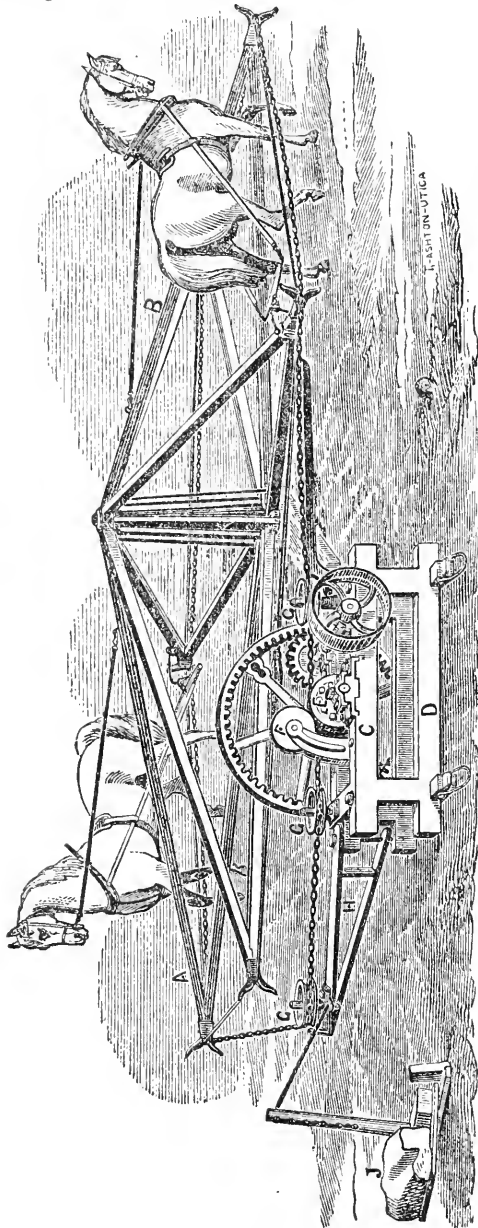
White or Hedge Willow for Sale.

CUTTINGS of this superior live fence plant, of suitable length, at \$1 per 100 or \$5 per 1000. Warranted true SALIX ALBA. mh D. S. HIEFFRON, Utica, N. Y.

TILE MACHINE.

THE BEST MACHINE IN AMERICA. Send for a Circular containing description. A. LA TOURETTE, Waterloo, N. Y. nov'63-1y

Perry's American Horse Power.—A Great LABOR SAVING MACHINE, AND ONE OF THE MOST VALUABLE INVENTIONS OF THE AGE.—FIRST PREMIUMS were awarded it by the N. Y. State Agricultural Society at the state Fairs of 1863 and 1864, and by the Michigan State Agricultural Society at the State Fair of 1864.—Manufactured by E. REMINGTON & SONS, Ilion Agricultural Works, Ilion, Herkimer county, N. Y.



WHY THE NEW IS MUCH SUPERIOR TO THE OLD POWERS.

- 1st. It occupies much less room for storage, when not in use.
- 2d. It is less heavy and cumbersome—more portable.
- 3d. Can be snugly packed on a common one-horse wagon—and not a heavy load for one horse to draw.
- 4th. Any part can be readily lifted, and loaded, by two men.
- 5th. Not at all liable, like other Powers, to be racked or injured by moving.

- 6th. Is very quickly and easily set up for work.
- 7th. No Joints loosened by setting up and taking down, no matter how often done.
- 8th. Will cost less for Oil, Lard, or Tallow, to run it.
- 9th. Will cost less for repairs, on account of natural wear; and will last longer.
- 10th. Not nearly so liable to serious breakage from great or sudden strains.
- 11th. Home blacksmithing or carpentry will suffice for almost any carelessness.
- 12th. No danger of long suspensions of work on account of breakdowns.
- 13th. Has no bridge, rod, belt, or any other part of the machine for the horses to step over every turn, like all other field Sweep Powers—a great advantage.
- 14th. Will do double the work of other Sweep Powers with the same team.
- 15th. Will do more work with the same team than any Tread Power, and is much more safe and pleasant for the horses.
- 16th. Is the lowest priced of any Power in the market, capable of doing, either, an equal variety, or an equal amount, of work.

Mr. Wm. D. SCHERMERHOEN, of Deerfield, Oneida county, N. Y., says:

JANUARY 18th, 1864.

Your Horse Power pleases me much. I can saw, in the same time with it, more wood with one horse than I could with two, using any other Power I have ever owned or tried. With rather a small horse I can saw from twenty to twenty-five cords per day with a drag saw. Expecting much from the Power, yet my expectations were not over half what I have realized, especially when I commenced using a circular saw, and found how fast and how easily I could saw, using only two small horses. I believe this new Power will and ought to come into general use for threshing and other purposes.

Mr. JONAS HOOK, jr., of Bridgewater, Oneida county, writes as follows, under date of August 30th, 1863:

"I have been threshing with the Power I bought of you. It works splendidly. I can thresh and clean 400 bushels of oats per day, with two horses, and do it with ease. Old threshers who have been here to see it work, say that I can do more with two horses than they can with five, on the old Powers."

Some improvements, in the way of a heavier and a hardened chain, and in the mode of running the chain, and some other changes in the Jack, have since been made by the inventor, in order to still further simplify and to render the Power practically perfect.

UNPRECEDENTED WITH A CIRCULAR SAW.

This is to certify that during the middle of one of the warmest, if not the warmest day of last August, with no wind stirring, and in a place peculiarly exposed to the hottest rays of the sun, one horse, with Mr. Perry's Horse Power, sawed for me with a Circular Saw, a full measured Cord of large, very dry, and very hard Maple wood, every stick twice through, in just fourteen minutes, as timed by two watches.

C. R. NEGUS,
Pastor of the Baptist Church, Newport.
Newport, February 6th, 1864.

A CORD IN EIGHT MINUTES WITH A DRAG SAW.

At a Public Trial in Newport, a cord of hard wood was sawed in eight minutes, and 3 cords and 5/8 feet in thirty-two minutes with ease, by only one horse, including the time occupied in placing two additional logs on the log-way, and the binding of the same after sawing each block, and all stops, as timed by many watches, and measured by a number of men. A more detailed statement of this extraordinary performance, signed by twenty-three prominent citizens of Newport and vicinity will be furnished to all who desire it.

PRICES.

Increased or decreased cost of material and labor in the future will probably cause a corresponding change in the prices given below. At present the price for

No. 1 is fixed at.....	\$200
No. 2 is fixed at.....	175
Drag Saw Attachment.....	25
Drag Saw (died).....	10
Log Way.....	20
Circular Saw (24 inch) with Table.....	53
“ “ “ without Table... ..	19

Catalogues containing a full description of the machine will be sent to any address on application. Address

E. REMINGTON & SONS,
Ilion, Herkimer co., N. Y.

THE GENESEE FARMER FOR 1865.

TERMS, PREMIUM LIST, &c.

REDUCTION OF PRICE IN CLUBS!

The price of the GENESEE FARMER for 1865 will be: To single subscribers, one dollar; in clubs of five and upwards, eighty cents each.

PREMIUMS! PREMIUMS! PREMIUMS!

1. To every person sending us *five* subscribers at our lowest club rates of eighty cents each, we will send, prepaid by mail, a copy of the *Rural Annual and Horticultural Directory* for 1865. **25 cents.**

2. To every person sending us *ten* subscribers at our lowest club rates of eighty cents each, we will send one copy of the *Genesee Farmer* for 1865, free, and also a copy of the *Rural Annual and Horticultural Directory* for 1865. **\$1.00.**

3. To every person sending us *fifteen* subscribers at our lowest club rates of eighty cents each, we will send a free copy of the *Farmer and Rural Annual* for 1865, and also a copy of *Miner's Domestic Poultry Book*, prepaid by mail. **\$1.50.**

4. To every person sending us *twenty* subscribers at eighty cents each, we will send an extra copy of the *Farmer and Rural Annual*, and also a copy of Emerson & Flint's *Manual of Agriculture* (a most excellent work); or, if preferred, a copy of *Rodgers' Scientific Agriculture*. **\$1.75.**

5. To every person sending us *twenty-five* subscribers at eighty cents each, we will send an extra copy of the *Farmer and Rural Annual*, and also a copy of *Everybody's Lawyer*, or the *Horse and his Diseases*. **\$2.50.**

6. To every person sending us *thirty* subscribers at eighty cents each, we will send an extra copy of the *Farmer and Rural Annual*, and also a complete set of the *Rural Annual and Horticultural Directory* for 1856-7-8-9-'60-'61-'62-'63 and '64—nine volumes. **\$3.25.**

7. To every person sending us *forty* subscribers at eighty cents each, we will send a complete set of the *Genesee Farmer* for the years 1860-'61-'62-'63 and '64, handsomely bound, with complete index, title page, &c.; and also a complete set of the *Rural Annual and Horticultural Directory* for the years 1856-7-8-9-'60-'61-'62 and '63, handsomely bound in two volumes. **\$7.50.**

8. To every person sending us *sixty* subscribers at eighty cents each, we will send an extra copy of the *Farmer and Rural Annual*, and also one of *Doty's Celebrated Washing Machines*, the best with which we are acquainted. It will be sent by express free of charge. This is a premium offered especially for the benefit of farmers' wives and daughters. A more useful present can not be found. **\$15.00.**

A Twenty-five Cent Premium to every Subscriber.

In clubs of five and upwards, the *Genesee Farmer* for 1865, and the *Rural Annual and Horticultural Directory* for 1865, will be sent together for one dollar.

The premiums offered above will also be sent to those forming clubs of the *Farmer and Rural Annual* together.

The postage on the *Genesee Farmer* to single subscribers is twelve cents a year. Being a monthly journal, however, the Postoffice Department allows it to be sent in packages to one address at the rate of four cents a year. This is another inducement to form clubs.

Money may be sent by mail at the risk of the publisher. If a paper does not come by return mail, write again, so that if the one is lost the matter may be investigated at once. Address

JOSEPH HARRIS,

Publisher and Proprietor Genesee Farmer and Rural Annual,
December 1, 1864. ROCHESTER, N. Y.

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THIS SCIENTIFIC and SELF-TEACHING system, which is being ordered by the thousand and sent to every part of the Union, consists of nearly one hundred copies on self-explaining card-board copy slips, and will guide the learner to an elegant command of the pen without schools or teachers. Terms, post-paid to all parts of the Union, **\$1.50.** Terms to Teachers and Clergymen, **\$1.**

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"The most scientific and beautiful of systems. An editor of a religious journal has called it magnificent, and worth \$5 instead of \$1.50."—*Journal and Messenger.*

"Babbittonian Penmanship is far in advance of all other systems. 1st. It is more scientific. 2d. It gives a more complete elementary discipline. 3d. It is more beautiful. 4th. It is more practical."—*R. M. Boggs, formerly Spencerian Penman.*

"Admirably adapted to the end in view."—*N. Y. Observer.*
The system is unequalled for use of schools as well as private learners, great reduction being made. *Splendid terms offered to Agents.* A fine

GOLD MEDAL

offered to the best Babbittonian Penman, and another for the best improvement from Babbittonian copies.

Send for Circular, or forward money for Penmanship to **BABBITT & WILT,** Principals of *Miami Commercial College,* Dayton, Ohio. dec64tf

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J. M. THORBURN & CO.,
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OFFER OF GROWTH OF 1864:

Pear Seed.....	100 lbs., \$275; 1/2 lb., \$4.00
Apple Seed.....	1 bushel, \$5; per quart, 50
Quince Seed.....	1/2 bushel, 3.00
Strawberry Seed.....	8 varieties, each, 1/2 oz., 3.00
Black Mazzard Cherry Pits.....	1/2 bushel \$12; per quart, 60
Mahaleb Cherry Pits.....	1/2 lb., 1.50
Plum Pits.....	1/2 bushel, \$5; 1/2 quart, 40
Peach Pits.....	1/2 bushel, \$2; 1/2 quart, 10

ALSO,

Buckthorn Seed.....	1/2 lb., \$1.00
Elm Seed.....	1/2 lb., 3.00
Norway Maple Seed.....	1/2 lb., 1.50
American Arbor Vitae Seed.....	1/2 lb., 5.00
Clematis Azura Grandiflora, &c., fine mixture.....	1/2 oz., 1.50
Viburnum Lantanoides.....	1/2 lb., 4.00
Magnolia Acuminata.....	1/2 lb., 3.00
Acer Pseudo-Platanus.....	1/2 lb., 1.00

J. M. THORBURN & CO., Seedsmen,
15 John-st., New York.

This year's Seeds of Norway Spruce, Scotch Fir, Austrian and Cembrian Pine, Larch and Silver Spruce, &c., will be ready the middle of December. dec1t

50,000 Peach Trees for Sale.

PEACH PITTS.

PEACH PITTS gathered with care from the southern counties of Maryland and eastern shore of Virginia. These Pitts are from the native stock, and are free from the diseases that our northern trees are liable to, and for sale at the Seed Store of **C. B. ROGERS,** 133 Market street, Philadelphia, Pa. dec1t

THE HUMAN FACE DIVINE. *A New System of Physiognomy—Eyes, Ears, Nose, Lips, Mouth, Head, Hair, Hands, Feet, Skin, with all "SIGNS OF CHARACTER," and How to Read Them, given in the*

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